This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problems Mailbox.

BEST AVAILABLE COPY

SEARCH REQUEST FORM

Requestor's Sinta	Robinson	Serial Number:	09326020
Date: 12 5 03	Phone: 7033%	5437	Art Unit: <u>/625</u>

Search Topic:

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevent citations, authors, keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevent claim(s).

See Quim

STAFF USE ONLY

Date completed: 12/5/03	Search Site	Vendors
Searcher: Skappaul	sтіс	IG
Terminal time:	CM-1	STN
Elapsed time:	Pre-S	Dialog
CPU time:	Type of Search	APS
Total time:	N.A. Sequence	Geninfo
Number of Searches:	A.A. Sequence	SDC
Number of Databases:	Structure	DARC/Questel
	Bibliographic	Other



STIC Search Report Biotech-Chem Library

STIC Database Tracking Number: 109890

TO: Binta M Robinson

Location:

Art Unit: 1625

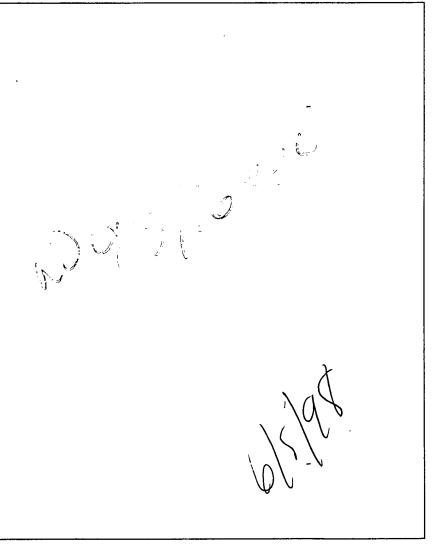
December 5, 2003

Case Serial Number: 09/326020

From: P. Sheppard Location: CM1-1E03 Phone: (703) 308-4499

sheppard@uspto.gov

Search Notes



=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 17:34:52 ON 05 DEC 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 5 Dec 2003 VOL 139 ISS 24 FILE LAST UPDATED: 4 Dec 2003 (20031204/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> => => d stat que STR L9 @16 C~~CH3 N~∿ SO2 @21 22 @23 24 25 @26 27 @19 10 G3~G4~G5 12 C-√O 14 0 13 35 0 0 N-√ C-√ O $N \sim C \sim N$ @28 29 30 @32 33 34

REP G1=(1-12) A
VAR G2=16/17/18/19
REP G3=(0-1) AK
VAR G4=CH/21
VAR G5=23/26/28/32
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 15

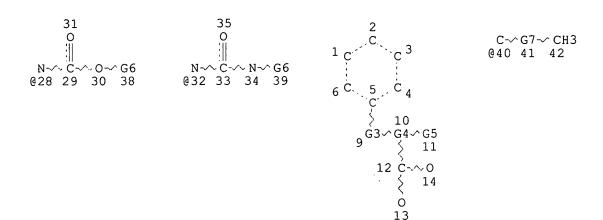
NUMBER OF NODES IS 35

STEREO ATTRIBUTES: NONE

L11 492 SEA FILE=REGISTRY SSS FUL L9

L12 STR

36 C C CH3 @21 22 N C C O @26 27 37 N C O @23 24 25



REP G3=(0-1) AK

VAR G4=CH/21

VAR G5=23/26/28/32

VAR G6=CH3/CB/40

REP G7 = (0-4) C

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 34

STEREO ATTRIBUTES: NONE

L13 203 SEA FILE=REGISTRY SUB=L11 SSS FUL L12 L14 58 SEA FILE=HCAPLUS ABB=ON PLU=ON L13

L15 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND PD=<JUNE 4, 1999

=>

=>

=> d ibib abs hitrn 115 1-29

L15 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:422230 HCAPLUS

DOCUMENT NUMBER: 131:257844

TITLE: A synthetic receptor for the Cbz-L-Ala-L-Ala-OH

dipeptide sequence

AUTHOR(S): Henley, Peter D.; Kilburn, Jeremy D.

```
Department of Chemistry, University of Southampton,
CORPORATE SOURCE:
                        Southampton, SO17 1BJ, UK
                        Chemical Communications (Cambridge) (1999),
SOURCE:
                        (14), 1335-1336
                        CODEN: CHCOFS; ISSN: 1359-7345
                        Royal Society of Chemistry
PUBLISHER:
                        Journal
DOCUMENT TYPE:
                        English
LANGUAGE:
    A novel bowl-shaped macro-bicyclic receptor has been prepd. and is a
    particularly strong and selective receptor for Cbz-L-Ala-L-Ala-OH
     (-.DELTA.Gass = 25 kJ mol-1 at 293 K in CDCl3).
    244757-64-0P 244757-65-1P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and reaction of in the synthesis of synthetic receptor for the
       Cbz-L-Ala-L-Ala-OH dipeptide sequence)
                              THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                        18
                              RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L15 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
                       1999:166589 HCAPLUS
ACCESSION NUMBER:
                       130:209978
DOCUMENT NUMBER:
                       Preparation of N-aroylphenylalanine derivatives as
TITLE:
                        vascular cell adhesion molecule-1 (VCAM-1) binding
                        inhibitors
                        Chen, Li; Guthrie, Robert William; Huang, Tai-Nang;
INVENTOR(S):
                        Hull, Kenneth G.; Sidduri, Achytharao; Tilley,
                        Jefferson Wright
                       F. Hoffmann-La Roche A.-G., Switz.
PATENT ASSIGNEE(S):
                       PCT Int. Appl., 215 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:
                    APPLICATION NO. DATE
    PATENT NO. KIND DATE
    WO 9910313 A1 19990304 WO 1998-EP5144 19980813 <--
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
            KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
            NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
            UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
            FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
            CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     AA 19990304 CA 1998-2300121 19980813 <--
    CA 2300121
                                         AU 1998-93419
                                                         19980813 <--
    AU 9893419
                      Αl
                           19990316
                           20020117
    AU 742928
                     B2
    EP 1005446
                                        EP 1998-946326 19980813
                          20000607
                    A1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
    BR 9811988 A
                           20000905 BR 1998-11988 19980813
                                         JP 2000-507644
                                                          19980813
     JP 2001514163
                     T2 20010911
                                         ZA 1998-7602
                                                          19980821 <--
    ZA 9807602
                          19990504
                    Α
                                                          19980821
                    B1 20020924
                                         US 1998-138353
    US 6455550
                                         TW 1998-87113767 19980821
                    В
                          20030101
    TW 515792
     US 2003109459 A1 20030612
                                      US 2002-117616 20020405
US 1997-56929P P 19970822
PRIORITY APPLN. INFO.:
                                       US 1998-94591P P 19980729
WO 1998-EP5144 W 19980813
                                       US 1998-138353 B3 19980821
```

Page 3

OTHER SOURCE(S): MARPAT 130:209978

```
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *
AB
     Title compds. I [one of X, X1 = H, halo, lower alkyl and the other =
     (un) substituted group X6, X7, X10; R1 = H, lower alkyl; n = 0, 1; Het =
     5-6 membered heteroarom. ring contg. 1-3 heteroatoms N, O, S, or 9-10
     membered bicyclic heteroarom. ring contg. 1-4 heteroatoms N, O, S; R19 =
     (un) substituted lower alkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl;
     R18 = H, any group R19; R20 = (un) substituted lower alkyl, aroyl, lower
     alkanoyl; Y = CR22R23R24, 3-7 membered ring Y2; R22, R23 = (un)substituted
     aryl, heteroaryl, lower alkyl; R24 = H, CN, (un)substituted aryl, lower
     alkyl, with provisos; R25 = lower alkyl, F-(un)substituted lower alkenyl,
     R26(CH2)m; R26 = aryl, heteroaryl, N3, CN, OH, NO2, amino, lower alkoxy,
     lower alkoxycarbonyl, lower alkanoyl, lower alkylthio, lower
     alkylsulfonyl, lower alkylsulfinyl, etc.; Q = bond, (CH2)pO, (CH2)pS,
     (CH2)p; m = 0-4; p = 0-3; Z = H, lower alkyl] and pharmaceutically
     acceptable salts and esters thereof, are disclosed which have activity as
     inhibitors of binding between VCAM-1 and cells expressing integrin VLA-4.
     Such compds. are useful for treating diseases whose symptoms and /or
     damage are related to the binding of VCAM-1 to cells expressing VLA-4.
     Thus, amidation of 4-amino-N-[(1-phenylcyclopentyl)carbonyl]-L-
     phenylalanine Me ester (prepn. given) with 4-quinolinecarboxylic acid and
     sapon. gave desired title deriv. II as its sodium salt. II inhibited
     VLA-4 binding to immobilized VCAM-1 with IC50 = 2.7 nM in solid-phase dual
     antibody assay.
     220876-32-4P 220879-87-8P 220880-11-5P
IT
     220880-41-1P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of N-aroylphenylalanine derivs. as vascular cell adhesion
        mol.-1 (VCAM-1) binding inhibitors)
ΙT
     220879-96-9P 220880-05-7P 220880-38-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of N-aroylphenylalanine derivs. as vascular cell adhesion
        mol.-1 (VCAM-1) binding inhibitors)
                               THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                         4
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L15 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
                         1999:166588 HCAPLUS
ACCESSION NUMBER:
                         130:196952
DOCUMENT NUMBER:
TITLE:
                         Preparation of N-alkanoylphenylalanine derivatives as
                         vascular cell adhesion molecule-1 (VCAM-1) binding
                         inhibitors
                         Chen, Li; Guthrie, Robert William; Huang, Tai-Nang;
INVENTOR(S):
                         Hull, Kenneth G.; Sidduri, Achytharao; Tilley,
                         Jefferson Wright
PATENT ASSIGNEE(S):
                         F. Hoffmann-La Roche A.-G., Switz.
```

FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

SOURCE:

LANGUAGE:

DOCUMENT TYPE:

PATENT NO. KIND DATE APPLICATION NO. DATE

PCT Int. Appl., 135 pp.

CODEN: PIXXD2

Patent English

```
19990304
                                           WO 1998-EP5135
     WO 9910312
                       Α1
                                                             19980813 <--
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
             UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            19990304
                                           CA 1998-2301377 19980813 <--
     CA 2301377
                       AA
     AU 9892620
                                            AU 1998-92620
                            19990316
                                                             19980813 <--
                       A1
     AU 739511
                            20011011
                       B2
    EP 1005445
                            20000607
                                            EP 1998-945235
                                                             19980813
                       Α1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                                            BR 1998-11730
                                                             19980813
     BR 9811730
                            20000905
                       Α
                                            JP 2000-507643
                                                             19980813
     JP 2001514162
                            20010911
                       T2
     NZ 502813
                            20021025
                                            NZ 1998-502813
                                                             19980813
                       Α
                                            ZA 1998-7604
                                                             19980821 <--
     ZA 9807604
                       Α
                            19990518
     US 6229011
                       В1
                            20010508
                                            US 1998-137798
                                                             19980821
     TW 490458
                            20020611
                                            TW 1998-87113768 19980821
                       В
     HR 2000000080
                            20001231
                                            HR 2000-80
                                                             20000211
                       A1
     NO 2000000841
                            20000221
                                           NO 2000-841
                                                             20000221
                       Α
                                         US 1997-56718P
                                                          P 19970822
PRIORITY APPLN. INFO.:
                                         US 1998-94592P
                                                          P 19980729
                                         WO 1998-EP5135
                                                          W 19980813
OTHER SOURCE(S):
                         MARPAT 130:196952
GI
```

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Title compds. I [one of X, X1 = H, halo, lower alkyl and the other = (un) substituted group X6, X7, X10; R1 = H, lower alkyl; n = 0, 1; Het = 5-6 membered heteroarom. ring contg. 1-3 heteroatoms N, O, S, or 9-10 membered bicyclic heteroarom. ring contg. 1-4 heteroatoms N, O, S; R18 = lower alkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl; R19 = (un) substituted lower alkyl, aryl, heteroaryl; R20 = lower alkyl, lower alkanoyl; R19R20 = (CH2)4; Y = group Y1, (un)substituted 5-6 membered monocyclic heteroarom. group contg. 1-3 heteroatoms N, O, S, 9-10 membered bicyclic heteroarom. group contg. 1-4 heteroatoms N, O, S; R22, R23 = H, lower alkyl, lower alkoxy, lower alkoxyaryl, lower alkylamino, aryl, arylalkyl, NO2, CN, lower alkylthio, lower alkylsulfinyl, lower alkylsulfonyl, lower alkanoyl, halo, perfluoroalkyl; both R22 and R23 .noteq. H; R24 = H, OH, lower alkyl, lower alkoxy, lower alkylsulfonyl, amino, aryl, NO2, CN, halo, (un) substituted 1-amino-5-tetrazolyl, sulfonamido, carboxamido; R22R24 = fused benzene ring; Z = H, lower alkyl; R31 = H, (un)substituted lower alkyl] and pharmaceutically acceptable salts and esters thereof, are disclosed which have activity as inhibitors of binding between VCAM-1 and cells expressing integrin VLA-4. Such compds. are useful for treating diseases whose symptoms and /or damage are related to the binding of VCAM-1 to cells expressing VLA-4. Thus, amidation of 4-amino-N-tert-butoxycarbonyl-L-phenylalanine Me ester with 2,6-dichlorobenzoyl chloride, followed by acidic deprotection, amidation with 2-chloro-6-methylbenzoic acid, and sapon. gave desired title deriv. II. II inhibited VLA-4 binding to immobilized VCAM-1 with IC50 = 0.33 nM in solid-phase dual antibody assay.

IT 220847-58-5P 220847-59-6P 220848-03-3P 220848-36-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

```
BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of N-alkanoylphenylalanine derivs. as vascular cell adhesion
        mol.-1 (VCAM-1) binding inhibitors)
ΙT
     220847-36-9P 220848-59-9P 220849-03-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of N-alkanoylphenylalanine derivs. as vascular cell adhesion
        mol.-1 (VCAM-1) binding inhibitors)
REFERENCE COUNT:
                               THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L15 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
                         1999:113710 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         130:153984
                         Preparation of N-sulfonyl dipeptide derivatives and
TITLE:
                         analogs as inhibitors of leukocyte adhesion mediated
                         by VLA-4
                         Thorsett, Eugene D.; Semko, Christopher M.; Pleiss,
INVENTOR(S):
                         Michael A.; Konradi, Andrei W.; Grant, Francine S.;
                         Dressen, Darren B.; Baudy, Reinhardt Bernhard
PATENT ASSIGNEE(S):
                         Athena Neurosciences, Inc., USA; American Home
                         Products Corporation
                         PCT Int. Appl., 151 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                           APPLICATION NO. DATE
     PATENT NO.
                      KIND
                            DATE
                            _____
                                           _____
                      A1
                            19990211
                                           WO 1998-US15314 19980730 <--
     WO 9906435
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
             NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           AU 1998-86612
                                                            19980730 <--
    AU 9886612
                       A1
                            19990222
                                           EP 1998-937991
    EP 994895
                       A1
                            20000426
                                                            19980730
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                            20000502
                                           ZA 1998-6834
                                                            19980730
     ZA 9806834
                       Α
                                           BR 1998-11599
                                                            19980730
     BR 9811599
                            20000919
                                           JP 2000-505190
                                                            19980730
     JP 2001512137
                       T2
                            20010821
                                           NO 2000-412
                                                            20000127
     NO 2000000412
                       Α
                            20000324
                                        US 1997-904415
                                                         A1 19970731
PRIORITY APPLN. INFO.:
                                        WO 1998-US15314 W 19980730
                         MARPAT 130:153984
OTHER SOURCE(S):
     Disclosed are title compds. R1SO2NR2CR3R4QCHR5COR6 [R1 = (un)substituted
AΒ
     alkyl, (un) substituted aryl, (un) substituted cycloalkyl, (un) substituted
    heterocyclyl; R2 = H, any group R1, (un) substituted cycloalkenyl; R1R2 may
     form heterocyclic ring; R3 = any group R1; R2R3 may form heterocyclic
     ring; R4 = any group R1; R3R4 may form cycloalkyl, (un) substituted
     heterocyclic ring; R5 = CHMe2, CH2X, :CHX1; X1 = H, OH, acylamino,
     optionally substituted alkyl, alkoxy, aryloxy, aryl, aryloxyaryl, carboxy,
     carboxyalkyl, etc.; Q = C(X)NR7, X = O, S, R7 = H, alkyl; X = O, S; R6 =
    NH2, (un) substituted alkoxy, (un) substituted cycloalkoxy, succinimidyloxy,
     adamantylamino, .beta.-cholest-5-en-3-yloxy, NHOY, NH(CH2)pCO2Y,
    OCH2NR9R10; Y = H, (un) substituted alkyl, (un) substituted aryl; p = 1-8;
     R9 = (un)substituted CO-aryl; R10 = H, CH2CO2R11, NHSO2Z; R11 = alkyl; Z =
```

(un) substituted alkyl, (un) substituted cycloalkyl, (un) substituted aryl, (un) substituted heteroaryl, (un) substituted heterocyclyl; and pharmaceutically acceptable salts thereof, with provisos] which bind VLA-4 (also referred to as integrin .alpha.4.beta.1 and CD49d/CD29). Certain of these compds. also inhibit leukocyte adhesion and, in particular, leukocyte adhesion mediated by VLA-4. Such compds. are useful in the treatment of inflammatory diseases in a mammalian patient, e.g., human, wherein the disease may be, for example, asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, rheumatoid arthritis, tissue transplantation, tumor metastasis and myocardial ischemia. The compds. can also be administered for the treatment of inflammatory brain diseases such as multiple sclerosis. Thus, sulfonylation of cycloleucine (1-aminocyclopentanecarboxylic acid) with tosyl chloride, followed by peptide coupling with L-phenylalanine Me ester and sapon. gave desired title compd. 4-MeC6H4SO2-cycloleucyl-Lphenylalanine.

IT 220172-69-0P 220172-75-8P 220173-00-2P 220173-04-6P 220173-06-8P 220173-49-9P 220173-50-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of N-sulfonyl dipeptide derivs. and analogs as inhibitors of leukocyte adhesion mediated by VLA-4)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:113708 HCAPLUS

DOCUMENT NUMBER: 130:153982

TITLE: Preparation of N-sulfonyl phenylalanine dipeptide

derivatives and analogs as inhibitors of leukocyte

adhesion mediated by VLA-4

INVENTOR(S): Dappen, Michael S.; Dressen, Darren B.; Grant,

Francine S.; Pleiss, Michael A.; Robinson, Cynthia Y.;

Sarantakis, Dimitrios; Thorsett, Eugene D.

PATENT ASSIGNEE(S): Athena Neurosciences, Inc., USA; American Home

Products Corporation

SOURCE: PCT Int. Appl., 190 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	ENT	DATE		A:	PPLI	CATI	ои ис	o.	DATE								
WO 9906433 A1 19990211									WO 1998-US15952 19980731 <								
	W:	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CU,	CZ,	DE,
		DK,	EE,	ES,	FI,	GB,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IS,	JP,	ΚE,	KG,
		ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MD,	MG,	MK,	MN,	MW,	MX,
						RO,											
						VN,											
	RW:					MW,											
		FΙ,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,
						ML,											
	9886																
EΡ	1001																
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	MC,	PT,
						FI,											
BR	9811	569		Α		2000	0919		B	R 19	98-1	1569		1998	-		
	2001								J	P 20	00-5	0518	8	1998	0731		
US	6559	127		В	1 ·	2003	0506		U	S 19	98-1	2753	3	1998	0731		



```
20000323
     NO 2000000451
                      Α
                                            NO 2000-451
                                                             20000128
     US 2003166575 A1
                            20030904
                                           US 2002-266889
                                                             20021007
                                         US 1997-112010P P 19970731
PRIORITY APPLN. INFO.:
                                         US 1997-904416 A1 19970731
                                         US 1998-127533 A3 19980731
                                         WO 1998-US15952 W 19980731
                         MARPAT 130:153982
OTHER SOURCE(S):
     Disclosed are title compds. R1SO2NR2CHR3QCHR5COR6 [R1 = (un)substituted
     alkyl, (un) substituted aryl, (un) substituted cycloalkyl, (un) substituted
     heterocyclyl; R2 = H, any group R1; R1R2 may form (un) substituted
     heterocyclic ring; R3 = H, any group R1; R2R3 may form (un) substituted
     unsatd. heterocyclic ring; R5 = CH2X1; X1 = H, OH, optionally substituted
     acylamino, alkyl, aryloxy, aryl, aryloxyaryl, CO2H, carboxyalkyl, carboxyheteroaryl, etc.; Q = C(X)NR7; R7 = H, alkyl; X = O, S; R6 = NH2,
     (un) substituted alkoxy, (un) substituted cycloalkoxy, succinimidyloxy,
     adamantylamino, .beta.-cholest-5-en-3-yloxy, NHOY, NH(CH2)pCO2Y,
     OCH2NR9R10; Y = H, (un) substituted alkyl, (un) substituted aryl; p = 1-8;
     R9 = (un)substituted CO-aryl; R10 = H, CH2CO2R11, NHSO2Z; R11 = alkyl; Z =
     (un) substituted alkyl, (un) substituted cycloalkyl, (un) substituted aryl,
     (un) substituted heteroaryl, (un) substituted heterocyclyl; and
     pharmaceutically acceptable salts thereof, with provisos] which bind VLA-4
     (also referred to as integrin .alpha.4.beta.1 and CD49d/CD29). Certain of
     these compds. also inhibit leukocyte adhesion and, in particular,
     leukocyte adhesion mediated by VLA-4. Such compds. are useful in the
     treatment of inflammatory diseases in a mammalian patient, e.g., human,
     wherein the disease may be, for example, asthma, Alzheimer's disease,
     atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease,
     rheumatoid arthritis, tissue transplantation, tumor metastasis and
     myocardial ischemia. The compds. can also be administered for the
     treatment of inflammatory brain diseases such as multiple sclerosis.
     Thus, reaction of Ts-Gly-OH (Ts = tosyl) with oxalyl chloride in CH2Cl2,
     followed by peptide coupling with L-phenylalanine benzyl ester tosylate
     and catalytic hydrogenolysis, gave desired title compd. Ts-Gly-Phe-OH.
     All prepd. compds. have IC50 .ltoreq. 15 .mu.M in a VLA-4 binding assay.
IT
     220186-18-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of N-sulfonyl phenylalanine dipeptide derivs. and analogs as
        inhibitors of leukocyte adhesion mediated by VLA-4)
                               THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L15 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:
                        1999:27805 HCAPLUS
                         130:95843
DOCUMENT NUMBER:
                         Preparation of cyclopentylcarbonylamino acid as
TITLE:
                         inhibitors of .alpha.4.beta.1 mediated cell adhesion
                         Lobl, Thomas J.; Rishton, Gil; Teegarden, Bradley;
INVENTOR(S):
                         Polinsky, Alex; Yamagishi, Masafumi; Tanis, Steven P.;
                         Fisher, Jed F.; Thomas, Edward W.; Chrusciel, Robert
                         Tanabe Seiyaku Co., Ltd., Japan; Pharmacia & Upjohn
PATENT ASSIGNEE(S):
                         Company
SOURCE:
                         PCT Int. Appl., 342 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
                         English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
```

PATENT NO. KIND DATE APPLICATION NO. DATE

```
19981230
                                                   WO 1998-US13064 19980623 <--
      WO 9858902
                           A1
           W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
               FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
                                 19990104
                                                   AU 1998-81633
                                                                       19980623 <--
      AU 9881633
                           Α1
                                                   EP 1998-931521
      EP 991619
                                 20000412
                           Α1
                                                                       19980623
                                 20030910
      EP 991619
                           B1
           R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                IE, FI
                                 20011002
                                                   JP 1999-504997
                                                                       19980623
      JP 2001517246
                           T2
                                                   US 1998-102584
                                                                       19980623
                           В1
                                 20021119
      US 6482849
                                                   AT 1998-931521
      AT 249421
                                 20030915
                                                                       19980623
                           Ε
      US 2003130349
                                 20030710
                                                   US 2002-193137
                                                                       20020712
                           A1
      US 6596752
                           В1
                                 20030722
PRIORITY APPLN. INFO.:
                                              'US 1997-50515P
                                                                   P 19970623
                                               US 1998-102584
                                                                   A3 19980623
                                               WO 1998-US13064 W 19980623
                             MARPAT 130:95843
OTHER SOURCE(S):
GΙ
   Me Me
                (CH<sub>2</sub>)nR6
      Title compds. [I; n = 0, 1; R1 = H, CH3; R2 = CN, CO2H, CONH2, CONHOCH2Ph,
AB
      NHCOOCH2Ph, etc.; R3 = H, CH3; X = CH, CO; R4 = H, alkyl; R5 = CO2H,
      CONH2, COOR, etc.; R = alkyl; R6 = aryl, heteroaryl, arylcarbonyl,
      aarylcarbonylaminoalkyl, etc.], a pharmaceutically acceptable salt, a
      stereoisomer thereof are prepd. as inhibitors of .alpha.4.beta.1 mediated
      adhesion to either VCAM or CS-1 and which can be used for treating or
      preventing .alpha.4.beta.1 adhesion mediated conditions in human such as
      inflammatory diseases. Thus, (1S-cis)- N-[(3-carboxy-2,2,3-
      trimethylcyclopentyl)carbonyl]-O-(phenylmethyl)-L-tyrosine was prepd. and
      assayed for inhibition of .beta.1-mediated cell adhesion in vitro.
      219494-63-0P 219494-64-1P 219495-91-7P
      219495-92-8P 219495-93-9P
      RL: BAC (Biological activity or effector, except adverse); BSU (Biological
      study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
      BIOL (Biological study); PREP (Preparation); USES (Uses)
          (prepn. of cyclopentylcarbonylamino acid as inhibitors of
          .alpha.4.beta.1 mediated cell adhesion)
                                     THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                              2
                                     RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
                         HCAPLUS COPYRIGHT 2003 ACS on STN
L15 ANSWER 7 OF 29
ACCESSION NUMBER:
                              1998:324824 HCAPLUS
DOCUMENT NUMBER:
                              129:27961
                              Preparation of heterocyclyl-substituted piperazines
TITLE:
                              for the prevention or treatment of a disease mediated
                              by the binding of adhesion molecules to GPIIb/IIIa
                              Mills, Stuart Dennett
INVENTOR(S):
                              Zeneca Ltd., UK
PATENT ASSIGNEE(S):
```

SOURCE:

U.S., 68 pp., Cont.-in-part of U.S. 5,563,141.

CODEN: USXXAM

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

<
<
<

AB The title compds. [(M1)n-Q-(M2)1-n-L-A; n = 0-1; M1 = NH2; Q = an arom. heterocyclic group contg. N atom; M2 = imino; L = template; A = an acidic group, or its ester or amide, or sulfonamide] and their pharmaceutically acceptable salts and pro-drugs, useful for the prevention or treatment of a disease mediated by the binding of adhesion mols. to GPIIb/IIIa, for the inhibition of platelet aggregation, and for the treatment of unstable angina. Thus, reaction of Me 4-bromoacetylphenoxyacetate with 1-(4-pyridyl)piperazine in MeCN afforded Me 4-{2-[4-(4-pyridyl)piperazin-1-yl]acetyl}phenoxyacetate which showed pIC50 of 5.8-6.4 against binding of fibrinogen to GPIIb/IIIa.

IT 166951-14-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of heterocyclyl-substituted piperazines for the prevention or treatment of a disease mediated by the binding of adhesion mols. to GPIIb/IIIa)

IT 166951-15-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyl-substituted piperazines for the prevention or treatment of a disease mediated by the binding of adhesion mols. to GPIIb/IIIa)

IT 166953-45-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of heterocyclyl-substituted piperazines for the prevention or treatment of a disease mediated by the binding of adhesion mols. to GPIIb/IIIa)

REFERENCE COUNT:

PATENT ASSIGNEE(S):

68 THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1998:239130 HCAPLUS

DOCUMENT NUMBER: 128:303347

TITLE: Radiopharmaceuticals for imaging infection and

inflammation

INVENTOR(S): Barrett, John Andrew; Cheesman, Edward Hollister;

Harris, Thomas David; Rajopadhye, Milind Du Pont Merck Pharmaceutical Company, USA

SOURCE: PCT Int. Appl., 352 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

GΙ

]	PAT	TENT NO.			KI	ND	DATE			A	PPI	LIC	CATIO	ои ис	ο.	DATE				
Ţ	WO	9815	295		Α	2	1998 1998	0416		W	0 1	199	97-U	5180	96	1997	1006	<- -		
										CZ,	E	Ξ,	HU,	IL,	JΡ,	KG,	KR,	ΚZ,	LT,	
			LV,	MD,	MX,	NO,	NZ,	PL,	RO,	RU,	SC	Ġ,	SI,	SK,	TJ,	TM,	UA,	VN,	AM,	
			AZ.	BY.	KG.	KZ.	MD,	RU,	TJ.	TM		•	·	•	•	•		-	•	
		RW:										3,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE
i	ΑU	9852	381		Δ	1	1998	0505		Δ	[] 1	190	8-52	2381		1997	1006	<		
7	ΑIJ	7364	81		В	2	2001	0726												
Ī	BR	9712	281		A		1999	0831		В	R 1	199	7-12	2281		1997 1997	1006			
. (CN	1239	895		Α		1999	1229		С	N 1	199	7-18	30342	2	1997	1006			
I	EΡ	9998	56		A.	2	2000	0517		Ė	P 1	199	7-94	1725	9	1997	1006		_	
I	ĒΡ	9998	56		В	1	2003	0514												
										GB,	GF	З,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
			IE,	FI																
1	ΝZ	3355	39		A		2001	0629		N	Z 1	199	7-33	3553	9	1997 1997 1997	1006			
	JΡ	2001	5257	96	\mathbf{T}	2	2001	1211		J	P 1	199	8-5	17680	0	1997	1006			
1	EΡ	1293	214		A.	2	2003	0319		E	P 2	200	2-79	9932		1997	1006			
I	EΡ	1293	214		A	3	2003	0326												
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	З,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,	
I	TA	2401	23		E		2003	0515		Α	T]	199	7-94	1725	9	1997	1006			
;	ZA	9708	956		А		1999	0416		Z	A]	199	7-89	956		1997	1007	<		
I	KR	2000	0489	22	Α		2000	0725		K	R 1	199	9-70	0295	3	1997 1999	0406			
1	ΜX	9903	234		А		2000	1130		M	X]	199	99-32	234		1999	0407			
PRIOR:	UA	7582	49		B	2	2003	0320		A	.U 2	200	1-48	3113		2001	0530			
PRIOR	ITY	APP	LN.	INFO	.:				1	US 1	996	6-7	2650	7	Α	1996	1007			
										AO T	220	J – J	1230.	L	$H_{\mathcal{S}}$	エンフィ	1000			
																1997				
											997	7 – U	JS180	096	W	1997	1006			
OTHER	SC	URCE	(S):			MAF	RPAT	128:	3033	47						•				

The present invention provides novel radiopharmaceuticals useful for the diagnosis of infection and inflammation, reagents and kits useful for prepg. the radiopharmaceuticals, methods of imaging sites of infection and/or inflammation in a patient, and methods of diagnosing diseases assocd. with infection or inflammation in patients in need of such diagnosis. The radiopharmaceuticals bind in vivo to the leukotriene B4 (LTB4) receptor on the surface of leukocytes which accumulate at the site of infection and inflammation. The reagents provided by this invention are also useful for the treatment of diseases assocd. with infection and inflammation. Thus, the leukotriene antagonist (I) was prepd. and shown to be active in an LTB4 human neutrophil (PMN) binding assay. Compd. I

was used to prep. 99mTc(tricine)(TPPTS)(4-ethyl-2-(4-fluorophenyl)-[5-[5,5dimethyl-6-[[[6-diazenido-3-pyridinyl]carbonyl]amino]hexyl]oxy]phenol) (TPPTS = tri(3-sulfonatophenyl)phosphine, sodium salt) which was was used to detect inflammation/infection in quinea pig and rabbit focal infection models.

ΙT 206266-68-4P 206266-69-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate for prepn. of leukotriene antagonist ligands and their 99mTc complexes for imaging and treatment of infection and inflammation)

206263-76-5P ΙT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. as leukotriene antagonist ligands for imaging and treatment of infection and inflammation)

L15 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

1997:547298 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 127:149074

Pyridine derivatives and analogs useful as vitronectin TITLE:

receptor antagonists

Ali, Fadia E.; Bondinell, William E.; Keenan, Richard INVENTOR(S):

M.; Ku, Thomas Wen Fu; Miller, William H.; Samanen,

James

Smithkline Beecham Corporation, USA; Ali, Fadia E.; PATENT ASSIGNEE(S):

Bondinell, William E.; Keenan, Richard M.; Ku, Thomas

Wen Fu; Miller, William H.; Samanen, James

	Miller, William H.; Samanen, Jan	mes
	Appl., 123 pp.	()
CODEN: P	TXXDZ	(() \
DOCUMENT TYPE: Patent		- ~ \ >
LANGUAGE: English		
FAMILY ACC. NUM. COUNT: 1		
PATENT INFORMATION:		
DAMENTAL MANAGEMENT	A DDI TOMETONI NO DA DE	
PATENT NO. KIND DATE	APPLICATION NO. DATE	
WO 9724122 A1 19970	710 WO 1996-US20744 1996	
	BR, CA, CN, CZ, EE, GE, HU, IL,	
	LV, MD, MG, MK, MN, MX, NO, NZ,	
	US, UZ, VN, AM, AZ, BY, KG, KZ,	
	UG, AT, BE, CH, DE, DK, ES, FI,	
	PT, SE, BF, BJ, CF, CG, CI, CM,	
MR, NE, SN, TD, TG	22, 32, 22, 22, 32, 32, 32,	,,
	710 CA 1996-2241724 1996	1220 <
	728 AU 1997-13538 1996	
	210 EP 1996-945085 1996	
	ES, FR, GB, GR, IT, LI, LU, NL,	
IE, SI, FI		
CN 1209060 A 19990	224 CN 1996-180099 1996	1220 <
BB 9612378 \(\Delta\) 19990	713 BR 1996-12378 1996	1220
JP 2000502708 T2 20000	307 JP 1997-524556 1996	
ZA 9610855 A 19971	.124 ZA 1996-10855 1996	1223 <
NO 9803002 A 19980	826 NO 1998-3002 1998	
	.025 US 2001-769125 2001	0124
PRIORITY APPLN. INFO.:	US 1995-9532P P 1995	
	WO 1996-US20744 W 1996	
	US 1998-91936 B1 1998	1203
OTHER SOURCE (S) - MARPAT 1	27:149074	

OTHER SOURCE(S): MARPAT 127:149074

GI

$$\begin{array}{c|c} & H & CO_2H \\ \hline \\ H_2N & N & \\ \hline \\ O & Me \\ \end{array}$$

Title compds. I [A = fibrinogen antagonist template; W = (CHR3) nU(CHR3) mV; AB X, Y, Z = N or CR4, provided that at most one is N; R1 = H, alkyl, cycloalkyl(alkyl), aryl(alkyl); R2 = R1, COR1, CO2R1; R3 = H, alkyl, heterocyclyl(alkyl), cycloalkyl(alkyl), aryl(alkyl); R4 = H, halo, OR3, SR3, cyano, (un) substituted NH2, etc.; U, V = bond, CO, CR3R3, S, SO, SO2, O, NR3, etc.; n, m = 0, 1, 2; p, q = 0, 1; with addnl. provisos] are disclosed. The compds. are vitronectin receptor antagonists, useful in the treatment of osteoporosis and other conditions. I are said to inhibit binding of SKF 107260 to vitronectin receptor in vitro at 0.01 to 25 .mu.M, with some compds. showing at least a 4-fold (and in some cases 10-fold) greater affinity for vitronectin receptor over fibrinogen receptor. Examples include prepns. of 35 title compds., with characterizing data for 4 of them. For instance, amidation of 6-[(methylamino)methyl]-2-pyridinamine with the corresponding carboxybenzodiazepineacetate deriv., and sapon. of the product with LiOH in aq. THF, gave title compd. II.

II

Ι

IT 193469-96-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyridine derivs. and analogs as vitronectin receptor antagonists)

L15 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:547292 HCAPLUS

DOCUMENT NUMBER: 127:149073

TITLE: Pyridine derivatives and analogs useful as vitronectin

receptor antagonists

INVENTOR(S): Ali, Fadia E.; Bondinell, William E.; Keenan, Richard

M.; Ku, Thomas Wen Fu; Miller, William H.; Samanen,

James

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA; Ali, Fadia E.;

Bondinell, William E.; Keenan, Richard M.; Ku, Thomas

Wen Fu; Miller, William H.; Samanen, James

SOURCE: PCT Int. Appl., 133 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

```
DATE
     PATENT NO.
                      KIND
                                           APPLICATION NO.
                            19970710
                                           WO 1996-US20327 19961220 <--
     WO 9724124
                       A1
         W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KG,
             KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG,
             SI, SK, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ,
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
                            19970728
                                           AU 1997-12955
                                                             19961220 <--
     AU 9712955
                       Α1
                                           CN 1996-180114
                            19990224
                                                             19961220 <--
     CN 1209063
                       Α
                                          EP 1996-943818
     EP 906103
                            19990407
                                                             19961220 <--
                       Α1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, FI
                            19990713
                                           BR 1996-12381
                                                             19961220
     BR 9612381
                       Α
                            20000307
                                            JP 1997-524453
                                                             19961220
     JP 2000502704
                       Т2
                            19980402
                                           ZA 1996-10854
                                                             19961223 <--
     ZA 9610854
                       Α
     NO 9803001
                            19980826
                                           NO 1998-3001
                                                             19980626 <--
                       Α
                                           US 1999-91937
                                                             19990727
     US 6159964
                       Α
                            20001212
PRIORITY APPLN. INFO.:
                                        US 1995-9367P
                                                         P 19951229
                                        WO 1996-US20327 W 19961220
                         MARPAT 127:149073
OTHER SOURCE(S):
```

GT

$$\begin{array}{c|c} & & & & \\ & & & \\ N & & & \\ N & & \\ Me & & \\ II & & \\ \end{array}$$

Title compds. I [A = fibrinogen antagonist template; W = (CHR2)nU(CHR2)mV; AΒ G, X, Y, Z = N or CR3, provided that no more than one is N; R1 = H, alkyl, cycloalkyl(alkyl), aryl(alkyl); R2 = H, alkyl, heterocyclyl(alkyl), cycloalkyl(alkyl), aryl(alkyl); R3 = H, halo, OR2, SR2, cyano, (un) substituted NH2, etc.; U, V = bond, CO, CR2R2, S, SO, SO2, O, NR2, etc.; n = 0, 1, 2, 3; m = 0, 1, 2; p = 0, 1] are disclosed. The compds. are vitronectin receptor antagonists, useful in the treatment of osteoporosis and other conditions. I are said to inhibit binding of SKF 107260 to vitronectin receptor in vitro at 0.01 to 25 .mu.M, with some compds. showing at least a 4-fold (and in some cases 10-fold) greater affinity for vitronectin receptor over fibrinogen receptor. Examples include prepns. of 41 title compds., with characterizing data for several of them. For instance, amidation of N-(2-pyridinyl)ethylenediamine with the corresponding carboxybenzodiazepineacetate deriv., and sapon. of the product with LiOH in aq. THF, gave title compd. II. IT

193473-29-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyridine derivs. and analogs as vitronectin receptor antagonists)

L15 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:513484 HCAPLUS

DOCUMENT NUMBER: 127:190753

TITLE: Preparation of heterocyclic derivatives as inhibitors

of the binding of fibrinogen to glycoprotein IIb/IIIa Wayne, Michael Garth; Smithers, Michael James; Rayner, John Wall; Faull, Alan Wellington; Pearce, Robert

John Wall; Faull, Alan Wellington; Pearce, Robert James; Brewster, Andrew George; Shute, Richard Eden; Mills, Stuart Dennett; Caulkett, Peter William Rodney

PATENT ASSIGNEE(S): Zeneca Ltd., UK

SOURCE: U.S., 42 pp., Cont.-in-part of U.S. 5,556,977.

CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

INVENTOR(S):

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
US 5652242	A 19970729	US 1995-457538 US 1994-218171 EP 1997-117909	19950601 <
R: AT, BE, CA 2194397 WO 9638416	CH, DE, DK, ES, AA 19961205 A1 19961205	FR, GB, GR, IT, LI, LU, CA 1996-2194397 WO 1996-GB1260	NL, SE, MC, PT, IE 19960528 < 19960528 <
ES, FI, LU, LV, SG, SI	GB, GE, HU, IS, MD, MG, MK, MN,	BG, BR, BY, CA, CH, CN, JP, KE, KG, KP, KR, KZ, MW, MX, NO, NZ, PL, PT,	LK, LR, LS, LT, RO, RU, SD, SE,
דב די	TII MC NT. PT	AT, BE, CH, DE, DK, ES, SE, BF, BJ, CF, CG, CI, AU 1996-58272	CM GA GN MI.
GB 2304340 GB 2304340 EP 796247	A1 19970319 B2 19980729 A1 19970924	AU 1996-58272 GB 1996-27127 EP 1996-919906	19960528 < 19960528 <
PT. SE		FI, FR, GB, GR, IE, IT,	
BR 9606409 DE 19680509 JP 09512836	A 19970930 T 19971204 T2 19971222	BR 1996-6409 DE 1996-19680509 JP 1996-536281	19960528 < 19960528 < 19960528 <
JP 2885941 AT 9609005 AT 406675 ES 2137886 ES 2137886	B2 19990426 A 19991215 B 20000725	AT 1996-9005	
CH 691808	Δ 20011031	CH 1997-224	
ZA 9604509 NL 1003243 FR 2734818 FR 2734818	A 19961202 C2 19961204 A1 19961206 B1 19980710	ZA 1996-4509 NL 1996-1003243 FR 1996-6747	19960531 < 19960531 <
BE 1009520 US 5750754	A5 19970401 A 19980512	BE 1996-491 US 1996-658097 SE 1997-203	19960604 <
SE 510812 FI 9700393	C2 19990628		

Ι

DK	9700106	Z	A 199	70401	DK	1997-106		19970130	<
NO	9700437	i	A 199	70220	NO	1997-437		19970131	<
US	5728701	i	A 199	80317	US	1997-82000	3	19970318	<
PRIORITY	APPLN.	INFO.:		G	3 19	93-6453	Α	19930329	
				G	3 19	93-25605	Α	19931215	
				U	5 19	94-218171	A2	19940328	
				G	3 19	93-6451	Α	19930329	
				G	3 19	93-25610	Α	19931215	
				Ε	2 19	94-910494	A3	19940328	
				U	5 19	95-457538	Α	19950601	
				G	3 19	95-18188	Α	19950907	
				W	19	96-GB1260	W	19960528	
OWITED CO	VIDOR /CV		MADDAG	1 1 2 7 . 1 0 0 7 5	2				

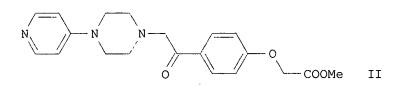
OTHER SOURCE(S):

MARPAT 127:190753

GI

$$\begin{array}{c}
N \\
R13
\end{array}$$

$$\begin{array}{c}
X^{2} - X^{1} \\
Z^{1}
\end{array}$$





The title compds. [I; M2 = NR3 (wherein R3 = H, C1-4 alkyl), etc.; X1 = a bond, C1-4 alkylene, C2-4 alkylene, etc.; Z1, Z1a = H, OH, halo, etc.; X2 = a bond, C1-4 alkylene, C2-4 alkylene, etc.; A1 = C0OH, a metabolically stable ester, amide; R13 = H, C1-4 alkyl, C1-4 alkoxy, halo] and their pharmaceutically acceptable salts, useful as inhibitors of the binding of fibrinogen to glycoprotein IIb/IIIa, were prepd. and formulated. Thus, reaction of Me 4-bromoacetylphenoxyacetate with 1-(4-pyridyl)piperazine in MeCN afforded the title compd. II which showed pIC50 of 7.2 against platelet aggregation.

IT 166951-14-0P 166951-15-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclic derivs. as inhibitors of the binding of fibrinogen to glycoprotein IIb/IIIa)

IT 166953-45-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of heterocyclic derivs. as inhibitors of the binding of fibrinogen to glycoprotein IIb/IIIa)

L15 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:

1997:77060 HCAPLUS

DOCUMENT NUMBER:

126:89361

TITLE:

Preparation of (oxazolyl)alkoxyphenylpropionic acid derivatives as hypoglycemics and hypolipemics

INVENTOR(S):

Takeno, Hidekazu; Ikemoto, Tomoyuki; Saitoh, Isao;

Watanabe, Kazuhiro

PATENT ASSIGNEE(S):

Sumitomo Metal Industries, Ltd., Japan; Takeno,

Hidekazu; Ikemoto, Tomoyuki; Saitoh, Isao; Watanabe,

Kazuhiro

SOURCE:

PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. _____ 19960524 <--WO 1996-JP1380

WO 9638415

19961205 A1

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,

ES, FI, GB, GE, HU, IS, JP, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,

SI, SK

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML

JP 08325263 AU 9657791

19961210 A2 19961218 Α1

JP 1995-133460 19950531 <--AU 1996-57791 19960524 <--

JP 1995-133460

PRIORITY APPLN. INFO.:

WO 1996-JP1380

. 19950531 19960524

OTHER SOURCE(S):

MARPAT 126:89361

GI

$$R^4$$
 COR^1 R^4 R^4 R^2 R^3

The title compds. I [A represents a nitrogenous heterocycle; W represents AB oxygen or carbonyl; R1 represents hydroxy, an ester residue or a substituted imide group; and R2 and R3 represent each hydrogen, alkyl, aralkyl, alkanoyl, benzoyl, etc.; R4 = H, nitro, etc.; m = 0 - 2] are prepd. The title compds. at 10 mg/kg gave 32 to 54% decrease of blood glucose in diabetic mice.

IT 185679-57-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of (oxazolyl)alkoxyphenylpropionic acid derivs. as hypoglycemics and hypolipemics)

L15 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:

1996:422683 HCAPLUS

DOCUMENT NUMBER:

125:131637

TITLE:

Mercaptoacyl Dipeptides as Orally Active Dual Inhibitors of Angiotensin-Converting Enzyme and

Neutral Endopeptidase

AUTHOR(S):

Fink, Cynthia A.; Carlson, J. Eric; McTaggart, Patricia A.; Qiao, Ying; Webb, Randy; Chatelain,

Ricardo; Jeng, Arco Y.; Trapani, Angelo J.

CORPORATE SOURCE:

Pharmaceuticals Division, CIBA-GEIGY Corporation, Summit, NJ, 07901, USA

SOURCE:

Journal of Medicinal Chemistry (1996),

39(16), 3158-3168

CODEN: JMCMAR; ISSN: 0022-2623

American Chemical Society PUBLISHER:

DOCUMENT TYPE:

Journal

LANGUAGE:

English

GI

Dual inhibitors of the two zinc metallopeptidases, neutral endopeptidase AB (NEP, EC 3.4.24.11) and angiotensin-I-converting enzyme (ACE, EC 2.4.15.1), have been the focus of much clin. interest for the treatment of hypertension and congestive heart failure. We have previously reported that compd. 2 (N-[[1-[(2(S)-mercapto-3-methyl-1-oxobutyl)amino]-1cyclopentyl]carbonyl]-L-tyrosine) was a potent dual inhibitor in vitro (IC50(ACE) = 7.0 nM, IC50(NEP) = 1.5 nM). This compd. was found to have oral activity; however, its duration of effect was short. Forty-four thioacetate carboxylic acid ester analogs (I) [where R = H, Me, Et, Pr, COMe, COEt, COCH(Me)2, COCH2OMe, COCH2CO2Et, CO(phenyl), CO(2-thienyl), (CO(3-pyridyl), CO(4-pyridyl), and CO2Et)OT; R1 = Me, Et, Pr, allyl, Bu, hexyl, CH(Me)2, CH2CH(Me)2, (CH2)2CH(Me)2, cyclopentyl, benzyl, CH2CON(Et)2, and CH2(3-pyridyl); R2 = Me, Et, Pr, tBu, CH2N(CH2)4O, CH2OMe, CH2N(Me)2, CH(Me)2, CH2N(CH2)5, 2-pyridyl, cyclopentyl, and cyclohexyl] were prepd. These compds. were evaluated for their ability to inhibit plasma ACE activity when administered orally to conscious normotensive rats. Most of the compds. prepd. were found to be orally active with longer durations of effect than compd. 2. II (I, where R = R2= Me, and R1 = Et), administered at 11.7 mg/kg po, was found to be more efficacious than captopril at 10 mg/kg po. This compd. was also found to inhibit plasma NEP activity following oral administration to conscious rats and was more efficacious than acetorphan. This compd. was found to lower blood pressure in the aorta-ligated rat and the spontaneously hypertensive rat when administered orally. The synthesis and biol. activity of these dual inhibitors are discussed.

Ι

IT 169319-91-9P 169319-95-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(mercaptoacyl dipeptides as orally active dual inhibitors of angiotensin-converting enzyme and neutral endopeptidase)

L15 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1996:371857 HCAPLUS

DOCUMENT NUMBER: 125:67716

TITLE: Sustained-release preparations for delivery of

water-soluble physiologically active substances Takada, Shigeyuki; Kurokawa, Tomofumi; Iwasa, Susumu

INVENTOR(S): Takada, Shigeyuki; Kurokawa, Tomofumi;

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

```
EP 709085 A1 19960501
EP 709085 B1 20010131
                                        EP 1995-115568 19951002 <--
                            19960501
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
     JP 08151321 A2 19960611 JP 1995-250818 19950928 <--
CA 2159552 AA 19960331 CA 1995-2159552 19950929 <--
                                           CA 1995-2159552 19950929 <--
     CA 2159552
                       AA
                            19960331
    EP 1022020
                      A2
                            20000726
                                           EP 2000-106329 19951002
    EP 1022020 A3
EP 1022020 B1
                            20010425
                            20030122
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE
    AT 198981 E 20010215 AT 1995-115568 19951002
AT 231390 E 20030215 AT 2000-106329 19951002
                                         JP 1994-236846 A 19940930
PRIORITY APPLN. INFO.:
                                                        A3 19951002
                                        EP 1995-115568
OTHER SOURCE(S):
                        MARPAT 125:67716
    A microcapsule comprising an amorphous water-sol. physiol. active
     substance and a polymer and a process for producing a microcapsule, which
     comprises dispersing an amorphous water-sol. physiol. active substance in
     a soln. of a polymer in an org. solvent into an aq. phase to prep. an
     emulsion and subjecting the emulsion to a rapid drying process, are
     described. The invention provides a microcapsule that has a high
     entrapment of a water-sol. drug and causes a small initial release. An
     antiplatelet aggregation agent S-4-[(4-amidinobenzoyl)glycyl]-3-
     methoxycarbonylmethyl-2-oxopiperazine-1-acetic acid in amorphous form was
     dispersed in a soln. of glycolic acid-lactic acid copolymer. The drug in
     the dispersion was pulverized to microparticles in a 0.2% PVA soln. contg.
     2.7% NaCl. The microcapsules were freeze-dried to obtain powdery
     microcapsules.
ΙT
     149490-61-9
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (sustained-release microcapsules contq. water-sol. physiol. active
        substances and polymers)
L15 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1996:275068 HCAPLUS
                        125:11471
DOCUMENT NUMBER:
                        Cyclic amino acid derivatives as inhibitors of
TITLE:
                         angiotensin converting enzyme and neutral
                         endopeptidase
                         Fink, Cynthia A.
INVENTOR(S):
                        Ciba-Geigy Corp., USA
PATENT ASSIGNEE(S):
SOURCE:
                         U.S., 15 pp., Cont.-in-part of U.S. 5,432,186.
                         CODEN: USXXAM
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:
```

PATEN'	r no.	KIND	DATE		AP	PLICATIO	ON NO.	DATE	
US 55	06244	A	19960409			1994-26		19940622	
US 54	32186	A	19950711		US	1993-15	53395	19931116	<
EP 65	5461	A1	19950531		EP	1994-83	10642	19941107	<
EP 65	5461	B1	20000607						
R	: AT, BE,	CH, DE	, DK, ES,	FR,	GB,	GR, IE,	IT, LI	, LU, NL,	PT, SE
AT 19	3706	Ε	20000615		AT	1994-83	10642	19941107	
ES 21	48305	Т3	20001016		ES	1994-83	10642	19941107	
AU 94	77729	A1	19950525		AU	1994-7	7729	19941109	<
AU 68	7444	B2	19980226						
IL 11	1581	A1	19990714		IL	1994-13	11581	19941110	
CA 21	35711	AA	19950517		CA	1994-2	135711	19941114	<- -
FI 94	05354	Α	19950517		FI	1994-53	354	19941114	<
NO 94	04364	А	19950518		NO	1994-43	364	19941115	<

JP 07196685	A2	19950801		JP 1994-280785	19941115 <
ZA 9409050	A	19950811		ZA 1994-9050	19941115 <
CN 1107857	A	19950906	(CN 1994-118911	19941115 <
CN 1058019	В	20001101			
ни 71423	A2	19951128	j	HU 1994-3276	19941115 <
US 5668158	A	19970916	1	US 1996-601626	19960214 <
PRIORITY APPLN. INFO.:		1	US :	1993-153395 A2	19931116
		τ	US :	1994-263859 A	19940622

OTHER SOURCE(S):

MARPAT 125:11471

GΙ

Disclosed are the compds. of formula I wherein: R = H, lower alkyl, AB carbocyclic or heterocyclic aryl-lower alkyl or cycloalkyl-lower alkyl; R1 = H, lower alkyl, cycloalkyl, carbocyclic aryl or heterocyclic aryl, or biaryl; R3 = H or acyl; R4 = H, lower alkyl, carbocyclic or heterocyclic aryl, carbocyclic or heterocyclic aryl-lower alkyl, cycloalkyl, cycloalkyl-lower alkyl, biaryl or biaryl-lower alkyl; R5 = H or lower alkyl; or R4 and R5 together with the carbon atom to which they are attached represent cycloalkylidene or benzo-fused cycloalkylidene; ring A = 3 to 10 membered cycloalkylidene or 5 to 10 membered cycloalkenylidene ring which may be substituted by lower alkyl or aryl-lower alkyl or may be fused to a satd. or unsatd. carbocyclic 5-7-membered ring; or ring A = 5or 6 membered oxacycloalkylidene, thiacycloalkylidene or azacycloalkylidene optionally substituted by lower alkyl or aryl-lower alkyl; or ring A = 2,2-norbornylidene; m is 0, 1, 2 or 3; and COOR2 = carboxyl or carboxyl derivatized in form of a pharmaceutically acceptable ester, disulfide derivs. derived from said compds. wherein R3 is H; and pharmaceutically acceptable salts thereof; methods of prepn. of said compds. and their intermediates; and pharmaceutical compns. comprising said compds. for treatment of disorders in mammals which are responsive to ACE and NEP inhibition. Thus, e.g., sapon. of N-[[1-[(2(S)-acetylmercapto-acety3-methyl- 1-oxobutyl)amino]-1-cyclopentyl]carbonyl]-L-tyrosine Me ester (prepn. given) afforded N-[[1-[(2-(S)-mercapto-3-methyl-1-oxobutyl)amino]-1-cyclopentyl]carbonyl]-L-tyrosine (II) which exhibited IC50 of about 7 nM in the ACE in vitro assay, and about 2 nM in the in vitro neutral endopeptidase (NEP, EC 3.4.24.11) assay.

IT 169319-95-3P 177476-66-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (cyclic amino acid derivs. as inhibitors of angiotensin converting enzyme and neutral endopeptidase)

L15 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

1995:878838 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 123:286742

TITLE: Preparation of acylpeptide analogs having angiotensin

converting enzyme and neutral endopeptidase inhibiting

activity.

Fink, Cynthia A. INVENTOR(S):

Ciba-Geigy A.-G., Switz. PATENT ASSIGNEE(S): Eur. Pat. Appl., 27 pp. SOURCE:

CODEN: EPXXDW

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE 19950531 EP 1994-810642 19941107 <--EP 655461 Α1

EP 655461 В1 20000607

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE 19950711 US 1993-153395 19931116 <--US 5432186 A US 1994-263859 19940622 <--US 5506244 A 19960409 PRIORITY APPLN. INFO.: US 1993-153395 A 19931116 US 1994-263859 A 19940622

MARPAT 123:286742 OTHER SOURCE(S):

For diagram(s), see printed CA Issue. GI

Title compds. [I; R = H, alkyl, (hetero)aralkyl, cycloalkylalkyl; R1 = H, AΒ alkyl, cycloalkyl, (hetero)aryl, biaryl; R3 = H, acyl; R4 = H, alkyl, (hetero)aryl, (hetero)aralkyl, cycloalkyl, cycloalkylalkyl, biaryl or biarylalkyl; R5 = H, alkyl; R4R5C = (benzo-fused) cycloalkylidene; A = atoms to complete (substituted) (fused) 3-10 membered cycloalkylidene, 5-10 membered cycloalkenylidene, 5-6 membered oxacycloalkylidene, thiacycloalkylidene, azacycloalkylidene, 2,2-norbornylidene; m = 0-3; and CO2R2 = carboxyl, pharmaceutically acceptable ester], disulfide derivs., and pharmaceutically acceptable salts thereof, were prepd. Thus, title compd. (II) at 10 mg/kg orally inhibits angiotensin 1-induced pressor response in rats for 6 h.

169319-91-9P 169319-95-3P IT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of acylpeptide analogs having angiotensin converting enzyme and neutral endopeptidase inhibiting activity)

L15 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

1995:810381 HCAPLUS ACCESSION NUMBER:

123:227994 DOCUMENT NUMBER:

Heterocyclic derivatives as platelet aggregation TITLE:

inhibitors

Wayne, Michael Garth; Smithers, Michael James; Rayner, INVENTOR(S):

John Wall; Faull, Alan Wellington; Pearce, Robert James; Brewster, Andrew George; Shute, Richard Eden; Mills, Stuart Dennett; Caulkett, Peter William Rodney

Zeneca Ltd., UK PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 145 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE							P	APPLICATION NO.						DATE					
WO	9422	834		A.	1					10	199	94-G	B647						
	W:														ES,				
		JP,	ΚP,	KR,	ΚZ,	LK,	LU,	LV,	MG,	M	N,	MW,	NL,	NO,	ΝZ,	PL,	PT,	RO,	
						SK,													
	RW:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	G	R,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	M.	L,	MR,	ΝE,	SN,	TD,	ΤG			
	2156			\mathbf{A}	Ą	1994	1013		C	A	199	94-2	1560	70	1994	0328	<		
AU	9462	889		A.	l	1994	1024		P	Ü	199	4-6	2889		19940	0328	<	_	
Z\	6921	3 ይ		R'	2	1998	า 6 1 1												
EΡ	6919	59		A.	l	1996	0117		E	P	199	94-9	1049	4	19940	328	<		
EP	6919	59		В:	l	1998	0722												
	R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	G:	R,	ΙE,	IT,	LI,	LU,	MC,	NL,	PT,	SE
BR	9406	613		A		1996	0206		Е	BR :	199	4-6	613		19940	328	<		
HU	7208	8		A2	2	1996	328		Н	U	199	95-2	290		19940	328	<		
CN	1120	334		Α		1996	0410		C	N.	199	94-1	9166	4	19940	0328	<		
JP	9406 7208 1120 0850 8251	8291		T	2	1996	0903		J	P:	199	4-5	2181	0	19940	328	<		
EΡ	8251	84		A.	l	1998	0225		E	P	199	97-1	1790	9	19940	328	<		
EP	8251	84		В:	l	2001	0620												
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	G:	R,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	ΙE
AT	1686		•												19940				
ES	2119	184		T	3	1998	1001		E	S	199	4-9	1049	4	19940	328	<		
RU	2142	944		C:	l	1999	1220		P	U	199	95-1	2260	2	19940	328			
IL	1091	44		A.	1	2000	0229		1	L	199	94-1	0914	4	19940	328			
	2023																		
	2159														19940				
	9504														1995	0928	<		
	9503	837		A		1995	0928		N	10	199	5-3	837	•	19950	0928	<		
_	5750					1998									19960	0604	<		
ORITY															19930	0329			
								(3R 1	99	3-2	560	5	Z A	1993				
								(GB 1	99	3-6	5451		A	19930				
								(GB 1	99	3-2	2561	0	A					
								Ì	EP 1	99	4 - 9	104	94	A3	1993 1994	0328			
									WO 1	99	4 – 6	B64	7	W	1994	0328		-	
									GB 1	99	5 - 1	818	8	A	1994 1995	0907			
HER SO	OURCE	(S):			MAR	PAT	123:2	2279	94		_								

THER SOURCE (S): GΙ

AΒ Pyridine derivs. and metabolically labile esters and amides thereof were disclosed as pharmaceuticals. The compds. are useful as inhibitors of the binding of fibrinogen to glycoprotein IIb/IIIa. A specifically claimed compd. is 4-[2-[4-(4-pyridinyl)-1-piperazinyl]acetyl]phenoxyacetic acid (I).

ΙT 166951-14-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

Ι

(prepn. of pyridine compds. platelet aggregation inhibitors)

IT 166951-15-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

```
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of pyridine compds. platelet aggregation inhibitors)
ΙT
     166953-45-3P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of pyridine compds. platelet aggregation inhibitors)
L15 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
                         1995:786283 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         124:56589
                         Polymer-supported Mitsunobu ether formation and its
TITLE:
                         use in combinatorial chemistry
                         Krchnak, Viktor; Flegelova, Zuzka; Weichsel,
AUTHOR(S):
                         Aleksandra S.; Lebl, Michal
                         Selectide Corp., Tucson, AZ, 85737, USA
CORPORATE SOURCE:
                         Tetrahedron Letters (1995), 36(35), 6193-6
SOURCE:
                         CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER:
                         Elsevier
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
    Arom. hydroxy acids, Ac-Tyr-OH and N-(4-hydroxybenzoyl)glycine, were
AB
     attached to a polymeric solid support and the phenolic hydroxy groups
     reacted with a variety of primary and secondary alcs. under the conditions
     of the Mitsunobu reaction (triphenylphosphine and di-Et azodicarboxylate)
     in THF. In most cases the reaction provided a nearly quant. yield of
     alkyl aryl ethers, as detd. after cleaving the product from the resin.
     demonstrate that the polymer-supported Mitsunobu reaction is useful for
     combinatorial library synthesis, the authors synthesized a no. of model
     compds. and a simple three randomization step library composed of 4,200
     different compds.
     171813-97-1P 171813-98-2P 171813-99-3P
TΤ
     171814-00-9P
     RL: SPN (Synthetic preparation); PREP (Preparation)
        (polymer-supported Mitsunobu etherification and use in combinatorial
        chem.)
L15 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:
                         1995:758624 HCAPLUS
DOCUMENT NUMBER:
                         123:169654
TITLE:
                         Preparation of heterocyclic compounds as platelet
                         aggregation inhibitors
INVENTOR(S):
                         Wayne, Michael Garth; Smithers, Michael James; Rayner,
                         John Wall; Faull, Alan Wellington; Pearce, Robert
                         James; Brewster, Andrew George; Shute, Richard Eden;
                         Mills, Stuart Dennett; Caulkett, Peter William Rodney
PATENT ASSIGNEE(S):
                         Zeneca Ltd., UK
SOURCE:
                         PCT Int. Appl., 236 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
                         5
PATENT INFORMATION:
```

PATENT	NO.		KI	ND	DATE			A	PPLI	CATI	ON NO	0.	DATE			
WO 9422				_	1994 1994			W	0 19	94-G	B648		1994	0328	<	
	AT,	AU,	BB,	BG,	BR,	BY,	,	,	,				ES, NZ,		•	
RW	AT,	BE,	CH,	DE,		ES,	FR,	GB,	GR,				MC,		PT,	SE,

CA 2155307 AA19941013 CA 1994-2155307 19940328 <--19940328 <--AU 9462890 19941024 AU 1994-62890 Α1 AU 692439 B2 19980611 19940328 <--EP 690847 A1 19960110 EP 1994-910495 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE JP 1994-521811 19940328 <--JP 08509967 T2 19961022 В2 20000918 JP 3088016 US 5750754 Α 19980512 US 1996-658097 19960604 <--PRIORITY APPLN. INFO.: GB 1993-6451 A 19930329 GB 1993-25610 A 19931215 A 19930329 GB 1993-6453 GB 1993-25605 A 19931215 WO 1994-GB648 W 19940328 GB 1995-18188 A 19950907

MARPAT 123:169654 OTHER SOURCE(S):

GI

$$N \longrightarrow N \longrightarrow NCH_2CO \longrightarrow OCH_2CO_2Me$$

Title compds. [I; (M1) nQ(M2) 1 - nLA wherein = 0, 1; M1 = amino; Q = AB N-heterocyclyl; M2 = imino; L = template; A = an acidic group, or ester, amide deriv., sulfonamide] and pharmaceutically acceptable salts and pro-drugs thereof are prepd. Me 4-(bromoacetyl)phenoxyacetate in MeCN was added to 1-(4-pyridyl)piperazine in MeCN to give the title compd II. Platelet aggregation inhibition was demonstrated by I. Pharmaceutical formulations comprising I are given.

166951-14-0P 166951-15-1P IT

> RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

Ι

(prepn. of heterocyclic compds. as platelet aggregation inhibitors)

166953-45-3P IT

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of heterocyclic compds. as platelet aggregation inhibitors)

HCAPLUS COPYRIGHT 2003 ACS on STN L15 ANSWER 20 OF 29

ACCESSION NUMBER: 1994:457996 HCAPLUS

DOCUMENT NUMBER: 121:57996

Process for preparing tyrosine derivatives useful as TITLE:

fibrinogen receptor antagonists

Chung, John Y. L.; Hughes, David L.; Zhao, Dalian INVENTOR(S):

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

U.S., 7 pp. Cont.-in-part of U.S. Ser. No. 843,690, SOURCE:

abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5312923	A	19940517	US 1993-17922	19930216 <
HU 70545	A2	19951030	HU 1994-2462	19930224 <
RU 2113432	C1	19980620	RU 1994-41212	19930224 <
CN 1076442	A	19930922	CN 1993-102134	19930227 <

```
19981104
     CN 1040534
                      В
PRIORITY APPLN. INFO.:
                                        US 1992-843690
                                                        B2 19920228
OTHER SOURCE(S):
                        CASREACT 121:57996; MARPAT 121:57996
     The invention is a highly efficient synthesis of tyrosine derivs.
AB
     4-[R1(CH2)mO]C6H4CH2CH(NHSO2R4)CO2H [I; R1 = 6-membered (un)satd
     heterocyclic ring contg. 1-2 heteroatoms selected from N, NH, or
     alkylimino; m = 2-6; RA = aryl, C1-10 alkyl, or C4-10 aralkyl].
    method involves (1) lithiation of Me heterocycles R1CH3 with BuLi and
    reaction with Br(CH2)m-1OR (R = tetrahydropyranyl) to give R1(CH2)mOR; (2)
    deprotection of the latter with HCl/EtOH, then neutralization with
     Et3N/THF, to give R1(CH2)mOH; (3) Mitsunobu reaction of these alcs. with
    N-sulfonylated tyrosine Me esters, followed by ester hydrolysis, to give
     I, and optional addnl. selective hydrogenation of unsatd. heterocyclic
     groups R1 in I. For example, 4-picoline underwent lithiation by BuLi,
     coupling with Br(CH2)3OR (R = 2-tetrahydropyranyl), deprotection, and
    neutralization to give 40% 4-(4-pyridinyl)butanol. This underwent
    Mitsunobu reaction with N-(n-butanesulfonyl)-L-tyrosine Me ester using
    PPh3 and iso-PrO2CN:NCO2Pr-iso, followed by hydrolysis of the Me ester
    with LiOH in aq. MeOH/THF, to give 55% L-I (Rl = 4-pyridyl, m = 4, R4 =
     Bu). Hydrogenation of this over Pd/C gave 86% L-I (R1 = 4-piperidinyl, m
     = 4, R4 = Bu), which inhibited ADP-stimulated aggregation of human
     platelets in vitro with an IC50 of 0.015 .mu.M.
IT
    149490-61-9P, N-(n-Butanesulfonyl)-O-[4-(4-pyridinyl)butyl]-L-
    tyrosine
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and hydrogenation of)
IT
    151414-73-2P, N-(n-Butanesulfonyl)-O-[4-(4-pyridinyl)butyl]-L-
     tyrosine methyl ester
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. and hydrolysis of)
L15 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:
                        1994:8480 HCAPLUS
DOCUMENT NUMBER:
                        120:8480
                        Preparation of O-[4-(4-piperidinyl)butyl]tyrosine via
TITLE:
                        the Mitsunobu reaction
INVENTOR(S):
                        Chung, John Y. L.; Hughes, David L.; Zhao, Dalian
PATENT ASSIGNEE(S):
                        Merck and Co., Inc., USA
                        PCT Int. Appl., 24 pp.
SOURCE:
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
                        English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                    KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
                                          ______
    WO 9316994
                           19930902
                                         WO 1993-US1621 19930224 <--
                     A1
        W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KR, LK, MG, MN, MW, NO, NZ,
            PL, RO, RU, SD, SK, UA, US
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
            BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG
                                          AU 1993-37313
                                                           19930224 <--
    AU 9337313
                           19930913
                      Α1
                                          HU 1994-2462
                                                           19930224 <--
    HU 70545
                      Α2
                           19951030
                                          CZ 1994-2056
                                                           19930224 <--
    CZ 282770
                      В6
                           19971015
    RU 2113432
                      C1
                           19980620
                                          RU 1994-41212
                                                           19930224 <--
                      В6
                                          SK 1994-1024
                                                           19930224
    SK 280164
                           19990910
```

RO 1994-1434

CN 1993-102134

FI 1994-3934

19930224

19930227 <--

19940826 <--

В1

Α

В

Α

RO 115724 CN 1076442

CN 1040534

FI 9403934

20000530

19930922

19981104

19941005

PRIORITY APPLN. INFO.:

US 1992-843690 A1 19920228

WO 1993-US1621 A 19930224

OTHER SOURCE(S):

CASREACT 120:8480; MARPAT 120:8480

GΙ

103 (a)

)211

The title compds. I [R1 = 6-membered (un)satd. heterocyclic ring contq. 1AB or 2 heteroatoms; R4 = aryl, C1-10 alkyl, C4-10 arylalkyl; m = 2-6], useful as fibrinogen receptor antagonists (no data), are prepd. in high yield and from inexpensive starting materials by reacting R1Me with BuLi and Br(CH2)mOR (R = tetrahydropyran) forming R1(CH2)mOR, cleaving the ether to an alc. with HCl, and then coupling the ether with a tyrosinesulfonamide Me ester in the presence of Ph3P and iso-PrO2CN:NCO2Pr-iso (Mitsunobu reaction). Thus, (L)-tyrosine Me ester hydrochloride was condensed with N-butanesulfonyl chloride and the intermediate coupled with 4-(4-pyridinyl)butanol via the Mitsunobu reaction, producing II.

IT 149490-61-9P

> RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of fibrinogen receptor antagonists)

ΙT 151414-73-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of, in prepn. of fibrinogen receptor antagonists)

HCAPLUS COPYRIGHT 2003 ACS on STN L15 ANSWER 22 OF 29

1993:650418 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 119:250418

TITLE: A practical synthesis of fibrinogen receptor

antagonist MK-383. Selective functionalization of

(S)-tyrosine

Chung, John Y. L.; Zhao, Dalian; Hughes, David L.; AUTHOR(S):

Grabowski, Edward J. J.

CORPORATE SOURCE: Dep. Process Res., Merck and Co., Inc., Rahway, NJ,

07065, USA

Tetrahedron (1993), 49(26), 5767-76 SOURCE:

CODEN: TETRAB; ISSN: 0040-4020

DOCUMENT TYPE:

Journal

LANGUAGE:

English

OTHER SOURCE(S):

CASREACT 119:250418

GΙ

AB A practical 4-step synthesis of fibrinogen receptor antagonist MK-383 (I.HCl), is accomplished in 48% overall yield from (S)-tyrosine. Highlights include: (1) the dual use of 4-picoline as a masked form of piperidine, and as a nucleophile precursor for a 3-carbon homologation with 3-bromo-1-chloropropane; (2) the use of trimethylsilyl groups for temporary protection of phenolic and carboxylate oxygens of (S)-tyrosine that enable selective N-sulfonylation to be carried out in high yield; (3) the selective phenolic O-alkylation of the tyrosine deriv. in high yield with no racemization using aq. KOH/DMSO; and (4) the selective hydrogenation of the pyridine ring in the presence of the tyrosine ring using Pd/C in acetic acid.

IT 149490-61-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and catalytic hydrogenation of)

L15 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:539778 HCAPLUS

DOCUMENT NUMBER: 119:139778

TITLE: Process for preparing fibrinogen receptor antagonists

INVENTOR(S): Chung, John Y. L.; Hughes, David L.; Zhao, Dalian

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: U.S., 8 pp. CODEN: USXXAM

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

US 5206373 A 19930427 US 1992-843658 19920228 <	
EP 558139 A1 19930901 EP 1993-200486 19930220 <	
EP 558139 B1 19970730	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT,	SE
EP 738714 A2 19961023 EP 1996-202049 19930220 <	
EP 738714 A3 19961120	
EP 738714 B1 20010502	
R: ES, GR	
AT 156118 E 19970815 AT 1993-200486 19930220 < ES 2105069 T3 19971016 ES 1993-200486 19930220 <	
ES 2105069 T3 19971016 ES 1993-200486 19930220 <	
ES 2156255 T3 20010616 ES 1996-202049 19930220	
WO 9316995 A1 19930902 WO 1993-US1646 19930223 <	NT 177
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KR, LK, MG, MN, MW, NO,	NΔ,
PL, RO, RU, SD, SK, UA, US	C F
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG	SE,
AU 9337322 A1 19930913 AU 1993-37322 19930223 <	
HU 70537 A2 19951030 HU 1994-2467 19930223 <	
CZ 283485 B6 19980415 CZ 1994-2033 19930223 <	
RU 2114105 C1 19980627 RU 1996-107890 19930223 <	
HU 217959 B 20000528 HU 1996-658 19930223	
RO 116016 B1 20000929 RO 1994-1433 19930223	
SK 281250 B6 20010118 SK 1994-1022 19930223	

JP 06009557	A2	19940118	JP 1993-36896 19930225 <
CA 2090509	AA	19930829	CA 1993-2090509 19930226 <
CA 2090509	С	19970225	
AU 9333836	A1	19930902	AU 1993-33836 19930226 <
AU 657199	B2	19950302	
CN 1076441	Α	19930922	CN 1993-10 2 136 19930227 <
CN 1050832	В	20000329	
FI 9403933	Α	19941004	FI 1994-3933 19940826 <
RU 2097377	C1	19971127	RU 1994-40166 19940826 <
LV 12824	В	20020920	LV 2002-41 20020315
PRIORITY APPLN. INFO	.:		US 1992-843658 A 19920228
			EP 1993-200486 A3 19930220
			WO 1993-US1646 A 19930223

OTHER SOURCE(S):

CASREACT 119:139778; MARPAT 119:139778

GI

AB Tyrosine derivs. I (R1 = 4-piperidiny1, 4-pyridy1; m = 2-6; R4 = ary1,C1-10 alkyl, aralkyl), useful as fibrinogen receptor antagonists (no data), were prepd. by N-sulfonylating tyrosine with R4SO2Cl mediated by N, O-bis(trimethylsilyl)trifluoroacetamide (BSTFA) and O-alkylating the resulting R4SO2-Tyr-OH with pyridylalkyl chlorides II in aq. alk. hydride in a highly polar aprotic solvent. When R1 = 4-piperidinyl is desired for I, the corresponding 4-pyridyl deriv. can be selectively hydrogenated over Pd/C in acetic acid. II was prepd. by treating 4-picoline with BuLi and then chloroalkylating with Br(CH2)mCl. Thus, a suspension of L-tyrosine and BSTFA in MeCN was heated at 85.degree. for 2 h and the resulting soln. of O,O'-bis(trimethylsilyl)L-tyrosine was cooled to 40.degree. and then pyridine and BuSO2Cl were added over 30 min. The reaction mixt. was aged at 70.degree. for 3 h and then at room temp. for 14 h.. Almost all the solvent was removed in a batch concentrator and the oily residue was treated with 15% KHSO4 and stirred for 1 h to give 84% BuSO2-L-Tyr-OH (III). 4-Picoline was treated with BuLi in THF and the resulting 4-picolyllithium was treated with Br(CH2)3Cl to give 92% II (m = 4) (IV). III was treated with IV in DMSO and 3N aq. KOH to give pyridylbutyl ether V, which was hydrogenated over Pd/C in acetic acid to give 4-piperidinyl ether VI.

IT 149490-61-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and selective hydrogenation of)

L15 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN 1991:536709 HCAPLUS ACCESSION NUMBER: 115:136709 DOCUMENT NUMBER: Thiolysis of the 3-nitro-2-pyridinesulfenyl (Npys) TITLE: protecting group. An approach towards a general deprotection scheme in peptide synthesis Rosen, Oren; Rubinraut, Sarah; Fridkin, Mati AUTHOR(S): Dep. Org. Chem., Weizmann Inst. Sci., Rehovot, 76100, CORPORATE SOURCE: Israel International Journal of Peptide & Protein Research (SOURCE: **1990**), 35(6), 545-9 CODEN: IJPPC3; ISSN: 0367-8377 DOCUMENT TYPE: Journal English LANGUAGE: The hydroxyl side-chain functional groups of serine, threonine, hydroxyproline, and tyrosine, the .alpha. - and .epsilon. - amino moieties of lysine, and the thiol group of cysteine were masked by the 3-nitro-2-pyridinesulfenyl (Npys) protecting group. Deprotection was mildly affected by thiolysis with either 2-mercaptopyridine and 2-mercaptomethylimidazole (O- and N-Npys) or with 3-mercaptoacetic acid and 2-mercaptoethanol (S-Npys). Thiolysis was monitored spectrophotometrically and was completed in a rather short time. Incorporation of the Npys group into a whole and single thiolyzable deprotection scheme is suggested. 133477-05-1P IT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) L15 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN ACCESSION NUMBER: 1991:207771 HCAPLUS DOCUMENT NUMBER: 114:207771 TITLE: 3-Nitro-2-pyridinesulfenyl (Npys): a versatile protecting group in peptide synthesis Rosen, O.; Rubinraut, S.; Fridkin, M. AUTHOR(S): CORPORATE SOURCE: Dep. Org. Chem., Weizmann Inst. Sci., Rehovot, 76100, Israel SOURCE: Pept., Proc. Eur. Pept. Symp., 20th (1989), Meeting Date 1988, 52-4. Editor(s): Jung, Guenther; de Gruyter: Berlin, Fed. Rep. Ger. Bayer, Ernst. CODEN: 57ACAI DOCUMENT TYPE: Conference LANGUAGE: English A symposium report on the use of the Npys group for side chain protection in peptide synthesis. The versatile nature of the Npys group was illustrated by the synthesis of the following protected amino acids: Boc-Ser(Npys)-OH (Boc = Me3CO2C), Boc-Thr(Npys)-OH, Boc-Hyp(Npys)-OH, Boc-Tyr(Npys)-OH, Boc-Lys(Npys)-OH, Boc-Cys(Npys)-OH, and Boc-Arg(Npys)-OMe. The use of Npys group for side chain protection was demonstrated by the solid-phase synthesis of gonadotropin-releasing hormone (Gn-RH) analogs [Lys8, Hyp9]-Gn-RH and [Thr4, Lys8, Hyp9]-Gn-RH. 133477-05-1P TT RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of) L15 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN ACCESSION NUMBER: 1981:103811 HCAPLUS 94:103811 DOCUMENT NUMBER: A14-(N-Methylpyridinium) and A14-(2-nitro-4-TITLE:

Magojo, H. E. M.

AUTHOR(S):

trimethylammoniophenyl) derivatives of bovine insulin Drewes, S. E.; Easter, B. R. D.; Robinson, H. M.;

CORPORATE SOURCE: Dep. Chem., Univ. Natal, Pietermaritzburg, S. Afr. SOURCE:

Insulin: Chem., Struct. Funct. Insulin Relat. Horm.,

Proc. Int. Insulin Symp., 2nd (1980),

Meeting Date 1979, 135-41. Editor(s): Brandenburg, Dietrich; Wollmer, Axel. de Gruyter: Berlin, Fed.

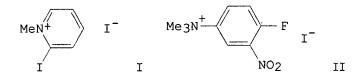
Rep. Ger. CODEN: 44BTA8

DOCUMENT TYPE:

LANGUAGE:

GT

Conference English



Title compds., 14A-[O-(1-methylpyridinium-2-yl)-L-tyrosine]insulin and AΒ 14A-[O-[2-nitro-4-(trimethylammonio)phenyl]-L-tyrosine]insulin were prepd. via substitution reactions of insulin or NA-(Me3CO2C)insulin with

iodopyridinium iodide I and (fluorophenyl)ammonium iodide II, resp.

IT 76663-62-2P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

HCAPLUS COPYRIGHT 2003 ACS on STN L15 ANSWER 27 OF 29

1977:107036 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 86:107036

Amino-acids and peptides. Part XL. Protection TITLE: removable by electrolytic reduction: the use of

S-4-picolyl-L-cysteine and O-4-picolyl-L-tyrosine in

102(6)

Gosden, Anthony; Macrae, Robert; Young, Geoffrey T. AUTHOR(S):

CORPORATE SOURCE: Dyson Perrins Lab., Oxford Univ., Oxford, UK

SOURCE: Journal of Chemical Research, Synopses (1977

), (1), 22-3

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE: Journal LANGUAGE: English

Addn. of Na to L-cystine in liq. NH3 followed by addn. of 4-picolyl chloride gave 60% S-4-picolyl-L-cysteine [Cys(Pic)]. Electroredn. of

Cys(Pic) in 0.25M H2SO4 at a Hg cathode gave 88% L-cysteine. Boc-Cys(Pic)-Gly, Boc-Gly-Cys(Pic), and Boc-Tyr(Pic)-Gly (Boc =

Me3CO2C), prepd. by std. procedures, on sequential treatment with CF3CO2H, electrochem. redn., and aeration at pH 8.5 gave 74% L-cystinyldiglycine,

65% diglycyl-L-cystine, and 63% Tyr-Gly, resp.

TΤ 39837-03-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and coupling reaction of, with glycine deriv.)

L15 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

1973:4506 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 78:4506

TITLE: Protection of thiol and phenolic hydroxy-groups as

their 4-picolyl ethers, cleaved by electrolytic

reduction

Gosden, A.; Stevenson, D.; Young, G. T. AUTHOR(S): CORPORATE SOURCE: Dyson Perrins Lab., Oxf. Univ., Oxford, UK SOURCE: Journal of the Chemical Society, Chemical

Page 30

Communications (1972), (20), 1123-4 CODEN: JCCCAT; ISSN: 0022-4936

DOCUMENT TYPE: Journal

LANGUAGE: English

The 4-picolyl group (Pic), removable by electrolytic redn., was used to protect the thiol group of cysteine and the hydroxy group of tyrosine during peptide synthesis. Thus, redn. of L-cysteine with Na in liq. NH3 followed by treatment with PicCl gave 68% Pic-Cys which with BocN3 (Boc =

Me3COCO) gave 87% Boc-Cys-Pic (I). Gly-OEt with I and

dicyclohexylcarbodiimide followed by hydrolysis with aq. NaOH gave Boc-Cys(Pic)-Gly which on electrolytic redn. followed by air oxidn. gave 75% Gly-Cys-Cys-Gly. Similarly Pic-Tyr was used in the prepn. of Tyr-Gly.

ፐጥ 39837-03-1P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

L15 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1968:402826 HCAPLUS

69:2826 DOCUMENT NUMBER:

TITLE: Preparation of some phenyl pyridyl ethers with

antifungal and antibacterial properties

Muhlhauser, Richard O.; Jorgensen, Eugene C. AUTHOR(S):

CORPORATE SOURCE: School of Pharm., Univ. of California, San Francisco,

CA, USA

Journal of Pharmaceutical Sciences (1968), SOURCE:

57(1), 151-5

CODEN: JPMSAE; ISSN: 0022-3549

DOCUMENT TYPE: Journal LANGUAGE: English

2-Methyl-4-chlorophenyl 4-pyridyl ether (I) and 2-chlorophenyl 4-pyridylether were prepd. by condensation of N-pyridyl-4-pyridinium chloride-HCl with appropriate phenols. These compds. were effective as antifungal agents but were less effective as antibacterial agents. I had the greatest antifungal activity and the least toxicity.

IT 18614-60-3P

> RL: SPN (Synthetic preparation); PREP (Preparation) (prepn. of)

=> =>

=> select hit rn 115 1-29

E1 THROUGH E51 ASSIGNED

=> fil rea FILE 'REGISTRY' ENTERED AT 17:36:58 ON 05 DEC 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

4 DEC 2003 HIGHEST RN 623900-56-1 STRUCTURE FILE UPDATES: 4 DEC 2003 HIGHEST RN 623900-56-1 DICTIONARY FILE UPDATES:

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> =>

=> d his 116

(FILE 'HCAPLUS' ENTERED AT 17:34:52 ON 05 DEC 2003) SELECT HIT RN L15 1-29

FILE 'REGISTRY' ENTERED AT 17:36:58 ON 05 DEC 2003 L16 51 S E1-E51

=>

=>

=> d ide can 116 1-51

L16 ANSWER 1 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 244757-65-1 REGISTRY

CN L-Phenylalanine, 4,4'-[2,6-pyridinediylbis[imino[(1S)-1-(3-methoxy-3-oxopropyl)-2-oxo-2,1-ethanediyl]iminocarbonyl]]bis[N-[(1,1-dimethylethoxy)carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C47 H59 N7 O16

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:257844

L16 ANSWER 2 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 244757-64-0 REGISTRY

CN L-Phenylalanine, 4,4'-[2,6-pyridinediylbis[imino[(1S)-1-(3-methoxy-3-

oxopropyl)-2-oxo-2,1-ethanediyl]iminocarbonyl]]bis[N-[(1,1-oxopropyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-oxopyl)]bis[N-[(1,1-

dimethylethoxy)carbonyl]-, bis(phenylmethyl) ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C61 H71 N7 O16

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-B

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:257844

ANSWER 3 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN L16

RN 220880-41-1 REGISTRY

CN L-Phenylalanine, 4-[[(1-oxido-3-pyridinyl)carbonyl]amino]-N-[(1-

phenylcyclopentyl)carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C27 H27 N3 O5

CI COM

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 130:209978 REFERENCE

ANSWER 4 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN L16

RN 220880-38-6 REGISTRY

CN L-Phenylalanine, 4-[(2,4-dimethyl-3-pyridinyl)carbonyl]amino]-<math>N-[[1-[4-dimethyl-3-pyridinyl)carbonyl]amino](methylsulfonyl)butyl]cyclopentyl]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C29 H39 N3 O6 S

SR

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:209978

L16 ANSWER 5 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220880-11-5 REGISTRY

CN L-Phenylalanine, 4-[[[2,6-dimethyl-4-(trifluoromethyl)-3-pyridinyl]carbonyl]amino]-N-[[1-[4-(methylsulfonyl)butyl]cyclopentyl]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C29 H36 F3 N3 O6 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:209978

L16 ANSWER 6 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220880-05-7 REGISTRY

CN L-Phenylalanine, 4-[[(2,4-dimethyl-3-pyridinyl)carbonyl]amino]-N-[[1-[4-(methylsulfonyl)butyl]cyclopentyl]carbonyl]-, 2-(4-morpholinyl)ethyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C34 H48 N4 O7 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:209978

L16 ANSWER 7 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220879-96-9 REGISTRY

CN L-Phenylalanine, 4-[[(2,4-dimethyl-3-pyridinyl)carbonyl]amino]-N-[[1-[4-(methylsulfonyl)butyl]cyclopentyl]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C30 H41 N3 O6 S

SR CF

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:209978

L16 ANSWER 8 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN RN 220879-87-8 REGISTRY

Robinson 09_326020

CN L-Phenylalanine, 4-[[(2,4-dimethyl-3-pyridinyl)carbonyl]amino]-N-[[1-[4-(methylsulfonyl)butyl]cyclopentyl]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C28 H37 N3 O6 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:209978

L16 ANSWER 9 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220876-32-4 REGISTRY

CN L-Phenylalanine, 4-[[(1-oxido-3-pyridinyl)carbonyl]amino]-N-[(1-phenylcyclopentyl)carbonyl]-, monosodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C27 H27 N3 O5 . Na

SR CA

LC STN Files: CA, CAPLUS

CRN (220880-41-1)

Absolute stereochemistry.

Na

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:209978

L16 ANSWER 10 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220849-03-6 REGISTRY

CN L-Phenylalanine, N-[(1,1-dimethylethoxy)carbonyl]-4-[[(2,6-dimethyl-3-pyridinyl)carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H29 N3 O5

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:196952

L16 ANSWER 11 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220848-59-9 REGISTRY

CN 3-Pyridinecarboxylic acid, 4-[[[4-[(2S)-2-carboxy-2-[(2,6-

dimethylbenzoyl)amino]ethyl]phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H23 N3 O6

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:196952

L16 ANSWER 12 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220848-36-2 REGISTRY

CN L-Phenylalanine, N-(2,6-dichlorobenzoyl)-4-[[(2,4-dimethyl-3-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C24 H21 C12 N3 O4

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:196952

L16 ANSWER 13 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220848-03-3 REGISTRY

CN L-Phenylalanine, N-(2-chloro-6-methylbenzoyl)-4-[[[2,6-dimethyl-4-(trifluoromethyl)-3-pyridinyl]carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C26 H23 C1 F3 N3 O4

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:196952

L16 ANSWER 14 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220847-59-6 REGISTRY

CN L-Phenylalanine, N-(2-bromo-5-methoxybenzoyl)-4-[[(2,6-dimethyl-3-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H24 Br N3 O5

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:196952

L16 ANSWER 15 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

'RN **220847-58-5** REGISTRY

CN L-Phenylalanine, N-(2-chloro-6-methylbenzoyl)-4-[[(2,6-dimethyl-3-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H24 C1 N3 O4

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:196952

L16 ANSWER 16 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220847-36-9 REGISTRY

CN 4-Pyridinecarboxylic acid, 3-[[[4-[(2S)-2-carboxy-2-[(2,6-

dimethylbenzoyl)amino]ethyl]phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H23 N3 O6

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:196952

L16 ANSWER 17 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220186-18-5 REGISTRY

CN L-Phenylalanine, N-[2-(1,1-dioxido-3-oxo-1,2-benzisothiazol-2(3H)-yl)-1-oxopropyl]-4-[(4-pyridinylcarbonyl)amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C26 H24 N4 O7 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153982

L16 ANSWER 18 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220173-50-2 REGISTRY

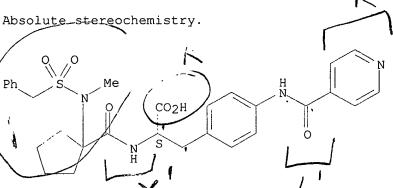
CN L-Phenylalanine, N-[[1-[methyl[(phenylmethyl)sulfonyl]amino]cyclopentyl]ca rbonyl]-4-[(4-pyridinylcarbonyl)amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C29 H32 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153984

L16 ANSWER 19 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220173-49-9 REGISTRY

CN L-Phenylalanine, N-[[1-[methyl[(phenylmethyl)sulfonyl]amino]cyclopentyl]carbonyl]-4-[(4-pyridinylcarbonyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)

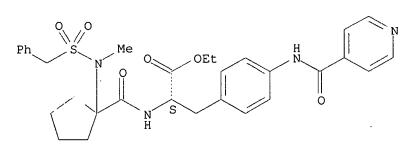
FS STEREOSEARCH

MF C31 H36 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153984

L16 ANSWER 20 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN **220173-06-8** REGISTRY

CN L-Phenylalanine, N-[[1-[methyl[(4-methylphenyl)sulfonyl]amino]cyclopentyl] carbonyl]-4-[(4-pyridinylcarbonyl)amino]- (9CI) (CA INDEX NAME)

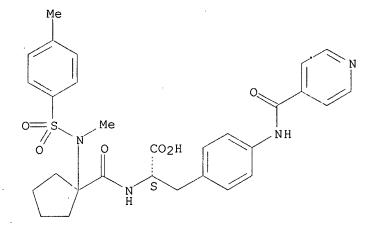
FS STEREOSEARCH

MF C29 H32 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



1021

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153984

L16 ANSWER 21 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN **220173-04-6** REGISTRY

CN L-Phenylalanine, N-[[1-[methyl[(4-methylphenyl)sulfonyl]amino]cyclopentyl] carbonyl]-4-[(4-pyridinylcarbonyl)amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C30 H34 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

1024

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153984

L16 ANSWER 22 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220173-00-2 REGISTRY

CN L-Phenylalanine, N-[[1-[methyl[(4-methylphenyl)sulfonyl]amino]cyclopentyl] carbonyl]-4-[(4-pyridinylcarbonyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)

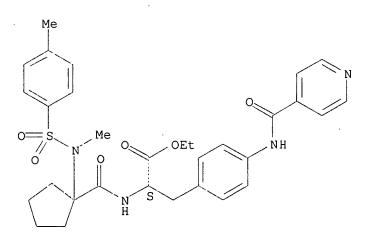
FS STEREOSEARCH

MF C31 H36 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153984

Robinson 09 326020

L16 ANSWER 23 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220172-75-8 REGISTRY

CN L-Phenylalanine, N-[[1-[[(4-methylphenyl)sulfonyl]amino]cyclopentyl]carbon yl]-4-[(4-pyridinylcarbonyl)amino]- (9CI) (CA INDEX NAME)

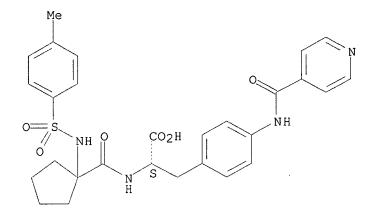
FS STEREOSEARCH

MF C28 H30 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



1000

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153984

L16 ANSWER 24 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 220172-69-0 REGISTRY

CN L-Phenylalanine, N-[[1-[[(4-methylphenyl)sulfonyl]amino]cyclopentyl]carbon yl]-4-[(4-pyridinylcarbonyl)amino]-, ethyl ester (9CI) (CA INDEX NAME)

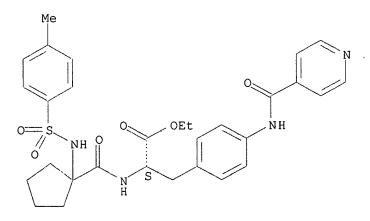
FS STEREOSEARCH

MF C30 H34 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



519

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:153984

L16 ANSWER 25 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 219495-93-9 REGISTRY

CN L-Phenylalanine, N-[[(1S,3R)-3-carboxy-2,2,3-trimethylcyclopentyl]carbonyl]-4-[[(6-chloro-2-methoxy-3-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C26 H30 C1 N3 O7

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

Joseph John Market Mark

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:95843

L16 ANSWER 26 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 219495-92-8 REGISTRY

CN L-Phenylalanine, N-[[(1S,3R)-3-carboxy-2,2,3-trimethylcyclopentyl]carbonyl]-4-[[(2,6-dichloro-3-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H27 C12 N3 O6

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

$$\begin{array}{c|c}
C1 \\
HO_2C \\
Me \\
Me
\end{array}$$

122

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:95843

L16 ANSWER 27 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 219495-91-7 REGISTRY

CN L-Phenylalanine, N-[[(1S,3R)-3-carboxy-2,2,3-trimethylcyclopentyl]carbonyl]-4-[[(2-chloro-3-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H28 C1 N3 O6

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

Absolute stereochemistry.

102

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:95843

L16 ANSWER 28 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 219494-64-1 REGISTRY

CN L-Phenylalanine, N-[[(1S,3R)-3-carboxy-2,2,3-trimethylcyclopentyl]carbonyl]-4-[(2-pyridinylcarbonyl)amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H29 N3 O6

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

HO₂C
$$Me$$
 Me Me

102

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:95843

L16 ANSWER 29 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 219494-63-0 REGISTRY

CN L-Phenylalanine, N-[[(1S,3R)-3-carboxy-2,2,3-trimethylcyclopentyl]carbonyl]-4-[(2-pyridinylcarbonyl)amino]-, .alpha.-methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C26 H31 N3 O6

SR CF

LC STN Files: CA, CAPLUS, USPATZ, USPATFULL

Absolute stereochemistry.

102

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 130:95843

L16 ANSWER 30 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 206266-69-5 REGISTRY

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[5-[(4,6-diphenyl-2pyridinyl)oxy]pentyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C36 H40 N2 O6

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

10z

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:94263

REFERENCE 2: 137:87495

REFERENCE 3: 136:362949

REFERENCE 4: 128:303347

L16 ANSWER 31 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 206266-68-4 REGISTRY

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[5-[(4,6-diphenyl-2-pyridinyl)oxy]pentyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

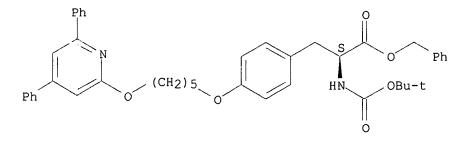
FS STEREOSEARCH

MF C43 H46 N2 O6

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:94263

REFERENCE 2: 137:87495

REFERENCE 3: 136:362949

REFERENCE 4: 128:303347

L16 ANSWER 32 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 206263-76-5 REGISTRY

CN L-Tyrosine, N-[2,2-dimethyl-1-oxo-6-[[5,6,7,8-tetrahydro-5-oxo-1-(2-propenyl)-2-naphthalenyl]oxy]hexyl]-O-[3-[[[6-[[(2-sulfophenyl)methylene]hydrazino]-3-pyridinyl]carbonyl]amino]propyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C46 H53 N5 O10 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry. Double bond geometry unknown.

PAGE 1-A

PAGE 1-B

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:94263

REFERENCE 2: 137:87495

REFERENCE 3: 136:362949

REFERENCE 4: 128:303347

L16 ANSWER 33 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 193473-29-9 REGISTRY

CN L-Tyrosine, N-(butylsulfonyl)-O-[4-(2-pyridinylamino)butyl]- (9CI) (CA

INDEX NAME)

FS STEREOSEARCH

MF C22 H31 N3 O5 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 127:149073

L16 ANSWER 34 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 193469-96-4 REGISTRY

CN L-Tyrosine, O-[3-(6-amino-2-pyridinyl)propyl]-N-(butylsulfonyl)-(9CI)

(CA INDEX NAME)

FS STEREOSEARCH

MF C21 H29 N3 O5 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 127:149074

L16 ANSWER 35 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 185679-57-6 REGISTRY

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[2-(5-ethyl-2-

pyridinyl)ethyl]-, ethyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C25 H34 N2 O5

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 126:89361 REFERENCE

L16 ANSWER 36 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

177476-66-3 REGISTRY RN

L-Tyrosine, N-[[1-[[2-(acetylthio)-3-methyl-1-CN oxobutyl]amino]cyclopentyl]carbonyl]-, ethyl ester, 2-pyridinecarboxylate

(ester), (S)- (9CI) (CA INDEX NAME)

STEREOSEARCH FS

C30 H37 N3 O7 S MF

SR CA

CA, CAPLUS, USPATFULL LC STN Files:

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

1: 125:11471 REFERENCE

ANSWER 37 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN L16

RN 171814-00-9 REGISTRY

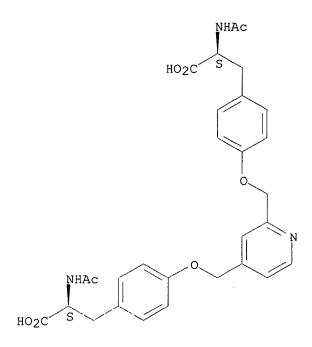
L-Tyrosine, O,O'-[2,4-pyridinediylbis(methylene)]bis[N-acetyl- (9CI) (CA CN INDEX NAME)

FS STEREOSEARCH

MF C29 H31 N3 O8

SR CA LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:56589

L16 ANSWER 38 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN **171813-99-3** REGISTRY

CN L-Tyrosine, N-acetyl-O-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)

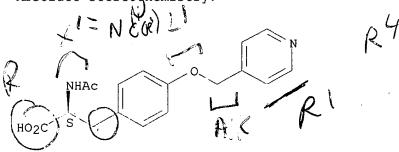
FS STEREOSEARCH

MF C17 H18 N2 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereoghemistry.



R4=Ctz

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:56589

L16 ANSWER 39 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 171813-98-2 REGISTRY

CN L-Tyrosine, N-acetyl-O-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C17 H18 N2 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:56589

L16 ANSWER 40 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 171813-97-1 REGISTRY

CN L-Tyrosine, N-acetyl-O-(2-pyridinylmethyl)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C17 H18 N2 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 124:56589

L16 ANSWER 41 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 169319-95-3 REGISTRY

CN L-Tyrosine, N-[[1-[[2-(acetylthio)-3-methyl-1-oxobutyl]amino]cyclopentyl]carbonyl]-, ethyl ester, 3-pyridinecarboxylate

(ester), (S)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C30 H37 N3 O7 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:131637

REFERENCE 2: 125:11471

REFERENCE 3: 123:286742

L16 ANSWER 42 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 169319-91-9 REGISTRY

CN L-Tyrosine, N-[[1-[[2-(acetylthio)-3-methyl-1-

oxobutyl]amino]cyclopentyl]carbonyl]-, ethyl ester, 4-pyridinecarboxylate

(ester), (S) - (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C30 H37 N3 O7 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

Robinson 09 326020

REFERENCE 1: 125:131637

REFERENCE 2: 123:286742

L16 ANSWER 43 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 166953-45-3 REGISTRY

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[3-(methyl-4-pyridinylamino)propyl]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C24 H33 N3 O5

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:27961

REFERENCE 2: 127:190753

REFERENCE 3: 123:227994

REFERENCE 4: 123:169654

L16 ANSWER 44 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 166951-15-1 REGISTRY

CN L-Tyrosine, N-(butylsulfonyl)-O-[3-(methyl-4-pyridinylamino)propyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H31 N3 O5 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

Robinson 09 326020

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:27961

REFERENCE 2: 127:190753

REFERENCE 3: 123:227994

REFERENCE 4: 123:169654

L16 ANSWER 45 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 166951-14-0 REGISTRY

CN L-Tyrosine, N-(butylsulfonyl)-O-[3-(methyl-4-pyridinylamino)propyl]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H33 N3 O5 S

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 129:27961

REFERENCE 2: 127:190753

REFERENCE 3: 123:227994

REFERENCE 4: 123:169654

L16 ANSWER 46 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 151414-73-2 REGISTRY

CN L-Tyrosine, N-(butylsulfonyl)-O-[4-(4-pyridinyl)butyl]-, methyl ester (9CI) (CA INDEX NAME)

OTHER NAMES:

CN N-(Butylsulfonyl)-O-[4-(4-pyridinyl)butyl]-L-tyrosine methyl ester

FS STEREOSEARCH

MF C23 H32 N2 O5 S

SR CA

LC STN Files: CA, CAPLUS, CASREACT, USPATFULL

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 121:57996

REFERENCE 2: 120:8480

L16 ANSWER 47 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 149490-61-9 REGISTRY

CN L-Tyrosine, N-(butylsulfonyl)-O-[4-(4-pyridinyl)butyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN N-(Butylsulfonyl)-O-[4-(4-pyridinyl)butyl]-L-tyrosine

FS STEREOSEARCH

MF C22 H30 N2 O5 S

SR CA

LC STN Files: CA, CAPLUS, CASREACT, CHEMINFORMRX, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)

5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 125:67716

REFERENCE 2: 121:57996

REFERENCE 3: 120:8480

REFERENCE 4: 119:250418

REFERENCE 5: 119:139778

L16 ANSWER 48 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 133477-05-1 REGISTRY
CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[(3-nitro-2-pyridinyl)thio](9CI) (CA INDEX NAME)

FS STEREOSEARCH MF C19 H21 N3 O7 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 115:136709

REFERENCE 2: 114:207771

L16 ANSWER 49 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 76663-62-2 REGISTRY

CN Insulin (cattle-A reduced), 14-[O-(1-methylpyridinium-2-yl)-L-tyrosine]-15de-L-glutamine-16-de-L-leucine-17-de-L-glutamic acid-18-de-L-asparagine-19de-L-tyrosine-20-de-L-cysteine-21-de-L-asparagine-, cyclic
(6.fwdarw.11)-disulfide, (7.fwdarw.7')-disulfide with 17-de-L-leucine-18de-L-valine-19-de-L-cysteine-20-deglycine-21-de-L-glutamic
acid-22-de-L-arginine-23-deglycine-24-de-L-phenylalanine-25-de-Lphenylalanine-26-de-L-tyrosine-27-de-L-threonine-28-de-L-proline-29-de-Llysine-30-de-L-alanineinsulin (cattle-B reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:

CN 1,2-Dithia-5,8,11,14,17-pentaazacycloeicosane, cyclic peptide deriv.

CN Insulin (ox-A reduced), 14-[O-(1-methylpyridinium-2-yl)-L-tyrosine]-15-de-L-glutamine-16-de-L-leucine-17-de-L-glutamic acid-18-de-L-asparagine-19-de-L-tyrosine-20-de-L-cysteine-21-de-L-asparagine-, cyclic (6.fwdarw.11)-disulfide, (7.fwdarw.7')-disulfide with 17-de-L-leucine-18-de-L-valine-19-de-L-cysteine-20-deglycine-21-de-L-glutamic acid-22-de-L-arginine-23-deglycine-24-de-L-phenylalanine-25-de-L-phenylalanine-26-de-L-tyrosine-27-de-L-threonine-28-de-L-proline-29-de-L-lysine-30-de-L-alanineinsulin (ox-B reduced)

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C150 H225 N38 O44 S4

LC STN Files: CA, CAPLUS

RELATED SEQUENCES AVAILABLE WITH SEQLINK

PAGE 1-A

0=

PAGE 1-B

PAGE 1-C

PAGE 3-A

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 94:103811

L16 ANSWER 50 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 39837-03-1 REGISTRY

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-(4-pyridinylmethyl)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN N-tert-Butoxycarbonyl-O-4-picolyl-L-tyrosine

FS STEREOSEARCH

MF C20 H24 N2 O5

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:144646

REFERENCE 2: 86:107036

REFERENCE 3: 78:4506

L16 ANSWER 51 OF 51 REGISTRY COPYRIGHT 2003 ACS on STN

RN 18614-60-3 REGISTRY

CN Alanine, N-acetyl-3-[3,5-diiodo-4-(4-pyridyloxy)phenyl]-, ethyl ester

(8CI) (CA INDEX NAME)

FS 3D CONCORD

MF C18 H18 I2 N2 O4

LC STN Files: BEILSTEIN*, CA, CAPLUS, TOXCENTER (*File contains numerically searchable property data)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 69:2826

=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 05 DEC 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 5 Dec 2003 VOL 139 ISS 24 FILE LAST UPDATED: 4 Dec 2003 (20031204/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d ibib abs hitrn 117 1-29

L17 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:796684 HCAPLUS

DOCUMENT NUMBER: 139:292142

TITLE: Preparation of benzofuran derivatives as activated

blood coagulation factor X inhibitors for treatment of

thrombosis

INVENTOR(S): Kawaquchi, Takayuki; Akatsuka, Hidenori; Iijima, Toru;

Tsuboi, Yasunori; Mitsui, Takashi; Murakami, Jun

PATENT ASSIGNEE(S): Tanabe Seiyaku Co., Ltd., Japan

SOURCE: PCT Int. Appl., 274 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.			KIND DATE			A	PPLI	CATI	ο.	DATE					
WO 200308	A	A1 20031009				WO 2003-JP3807 2003032									
W: A	AE, AG	, AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	ΒY,	ΒZ,	CA,	CH,	CN,
	CO, CR														
(GM, HR	, HU,	ID,	IL,	IN,	IS,	KE,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
]	LU, LV	, MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	ΝZ,	OM,	PH,	PL,
1	PT, RO	, RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	ΤZ,	UA,
Į	UG, US	, UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	ΒY,	KG,	ΚZ,	MD,	RU,
5	IJ, TM														

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

JP 2002-91686 A 20020328 JP 2002-376158 A 20021226

GI

AB The title compds. I [wherein X = N or CH; Y = (un)substituted amino, cycloalkyl, or satd. heterocyclyl; A = a single bond, O, or hydrocarbyl; R1 = H, halo, alkyl, alkoxy, CN, or (un)substituted amino; ring B = (un)substituted Ph; R3 = H or alkyl] and pharmaceutically acceptable salts thereof are prepd. as activated blood coagulation factor X (FXa) inhibitors. For example, the compd. II was prepd. in a multi-step synthesis. II showed IC50 of <100 nM against FXa. I are useful for the treatment of thrombosis (no data).

ΙI

IT 609804-43-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of benzofuran derivs. as activated blood coagulation factor X inhibitors for treatment of thrombosis)

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

3

ACCESSION NUMBER: 2003:511824 HCAPLUS

DOCUMENT NUMBER: 139:94263

TITLE: Radiopharmaceuticals for imaging infection and

inflammation

INVENTOR(S): Barrett, John Andrew; Cheesman, Edward Hollister;

Harris, Thomas David; Liu, Shuang; Rajopadhye, Milind;

Sworin, Michael

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 146 pp., Cont.-in-part of U.S.

6,416,733. CODEN: USXXCO

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
DATE
                                           APPLICATION NO. DATE
     PATENT NO.
                     KIND
                     ____
                            20030703
                                           US 2002-151663
                                                            20020520
     US 2003124053
                      Α1
                                           US 1997-943659
                                                            19971003
     US 6416733
                      В1
                            20020709
                                           WO 2003-US16008 20030520
                     A2
                            20031204
     WO 2003099810
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
             GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                        US 1996-27955P
                                                         P 19961007
                                                       A2 19971003
                                        US 1997-943659
                                        US 2002-151663
                                                       A 20020520
                         MARPAT 139:94263
OTHER SOURCE(S):
```

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

```
Claimed are compds. capable of direct transformation into a
AB
     radiopharmaceutical having a binding affinity for the LTB4 receptor of
     <1000 nm. The present invention provides novel radiopharmaceuticals
     useful for the diagnosis of infection and inflammation, reagents and kits
     useful for prepg. the radiopharmaceuticals, methods of imaging sites of
     infection and/or inflammation in a patient, and methods of diagnosing
     diseases assocd. with infection or inflammation in patients in need of
     such diagnosis. The radiopharmaceuticals bind in vivo to the leukotriene
     B4 (LTB4) receptor on the surface of leukocytes which accumulate at the
     site of infection and inflammation. The reagents provided by this
     invention are also useful for the treatment of diseases assocd. with
     infection and inflammation. Thus, the leukotriene antagonist (I) was
    prepd. and shown to be active in an LTB4 human neutrophil (PMN) binding
     assay. Compd. I was used to prep. 99mTc(tricine)(TPPTS)(4-ethyl-2-(4-
     fluorophenyl)-[5-[5,5-dimethyl-6-[[[6-diazenido-3-
     pyridinyl]carbonyl]amino]hexyl]oxy]phenol) (TPPTS = tri(3-
     sulfonatophenyl)phosphine, sodium salt) which was used to detect
     inflammation/infection in quinea pig and rabbit focal infection models.
     Also, indium-111 complexes, e.g., of DOTA deriv. II (R = CH2CH2CO2H), were
     prepd. as claimed radiopharmaceuticals.
     206266-68-4P, L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[5-
```

[(4,6-diphenyl-2-pyridinyl)oxy]pentyl]-, phenylmethyl ester **206266-69-5P**, L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[5-[(4,6-diphenyl-2-pyridinyl)oxy]pentyl]-

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate for prepn. of leukotriene antagonist ligands and their 99mTc complexes for imaging and treatment of infection and inflammation)

L17 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:511294 HCAPLUS

infection and inflammation)

DOCUMENT NUMBER: 139:85646

TITLE: Preparation of novel phenylalanine derivatives as

.alpha.4 integrin inhibitors

INVENTOR(S): Okuzumi, Tatsuya; Sagi, Kazuyuki; Yoshimura,

Toshihiko; Tanaka, Yuji; Nakanishi, Eiji; Ono, Miho;

Murata, Masahiro

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 124 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KI			ND	DATE		APPLICATION NO.						DATE					
WO	vo 2003053926			A	A1 20030703				W	20	02-J	P130	70	2002			
	W:	ΑE,	AG,	AL,	ΑM,	AT,	ΑU,	ΑZ,	ΒA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,
		UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,
		RU,	ТJ,	TM													
	RW:	GH,	GM,	KE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	BG,
		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,
		PT,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
		MR,	NE,	SN,	TD,	TG											
DRITY APPLN. INFO.:								JP 2001-380655					20011213				
					JP 2002-390°					3907	0	A 20020215		0215			
ER SOURCE(S) ·					MARPAT 139:85646												

OTHER SOURCE(S): MARPAT 139:85646

GI

PRIO

Phenylalanine derivs. represented by the following formula (I), their analogs, and pharmaceutically acceptable salts thereof [wherein A = Q-Q5; Arm = cycloalkyl or arom. ring contg. 0-4 heteroatoms selected from O, S, and N; R1 = H, (un)substituted alkyl, cycloalkyl-lower alkyl or cycloalkyl optionally contg. a heteroatom in the ring, aryl-lower alkyl, heteroaryl-lower alkyl, lower hydroxyalkyl, lower haloalkyl, (un)substituted alkenyl, lower haloalkyl, (un)substituted alkynyl, aryl, heteroaryl, lower alkoxycarbonyl, (un)substituted CONH2, lower alkanoyl, aroyl, lower alkylsulfonyl, (un)substituted SO2NH2; R2-R6, R10-R33 = groups listed in R1, halo, OH, lower alkoxy, lower alkylthio, cycloalkyl-lower alkyl or -alkylthio optionally contg. a heteroatom in the ring, (hetero)aryl-lower alkoxy or -lower alkylthio, lower hydroxyalkoxy, lower haloalkoxy, etc.; B = HO, alkoxy, (un)substituted lower alkoxy, hydroxyamino; when A = Q, Q1, Q2, Q3, or Q4, C = aryl, heteroaryl,

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Robinson 09 326020

cycloalkyl or cycloalkyl-lower alkyl optionally contq. a heteroatom in the ring, (hetero)aryl-lower alkyl, (un)substituted alkyl, etc.; when A = Q5, C = C(D)(D1)COE (wherein D, D1 = H, each (un)substituted lower alkyl, lower alkenyl, or alkynyl; E = amino, (un)substituted alkylamino, etc.); J, J1 = H, halo, lower alkyl, lower alkoxy, NO2, NH2, HO] are prepd. These show an .alpha.4 integrin inhibitory activity and are usable as remedies or preventives for various diseases, for example, in which the .alpha.4 integrin-dependent adhesion process relating to .alpha.4 integrin participates in pathol. conditions, such as inflammatory diseases, rheumatoid arthritis, inflammatory bowel disease, systemic lupus erythematosus, multiple sclerosis, Sjoegren's syndrome, asthma, psoriasis, allergy, diabetes, cardiovascular diseases, arteriosclerosis, restenosis, tumor proliferation, tumor metastasis or rejection in transplantation. Thus, 3-iodo-4-methoxy-1-methyl-2(1H)-quinoline was coupled with (2S)-2-(tert-butoxycarbonylamino)-3-[4-(4,4,5,5-tetramethyl-1,3,2dioxaborolan-2-yl)phenyl]propanoic acid Me ester in the presence of PdCl2(dppf) in a mixt. of aq. 2 M Na2CO3 soln. and DMF at 90.degree. for 30 min to give (2S)-2-(tert-butoxycarbonylamino)-3-[4-(4-methoxy-1-methyl-2-oxo-1,2-dihydro-3-quinolinyl)phenyl]propanoic acid Me ester which was treated with 4 N HCl/dioxane at room temp. for 30 min followed by evapn. of the solvent and N-acylation with 2,6-dichlorobenzoyl chloride in the presence of Et3N in CH2Cl2 to give (2S)-2-[(2,6-dichlorobenzoyl)amino]-3-[4-(4-methoxy-1-methyl-2-oxo-1,2-dihydro-3-quinolinyl)phenyl]propanoic acid Me ester (II). Sapon. of II with LiOH in mixt. of THF, H2O, and MeOH followed by purifn. using reversed phase HPLC gave (2S)-2-[(2,6dichlorobenzoyl)amino]-3-[4-(4-methoxy-1-methyl-2-oxo-1,2-dihydro-3quinolinyl)phenyl]propanoic acid (III). III in vitro showed IC50 of 3.5 and 44 nM for inhibiting the binding of recombinant human VCAM-1 to human T cell (Jurkat cell) expressing human integrin .alpha.4.beta.1 and that to human B cell lymphoma (RPMI-8866 cell) expressing integrin .alpha.4.beta.7, resp.

IT 554418-89-2DP, Wang resin-bound

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of novel phenylalanine derivs. as .alpha.4 integrin inhibitors for treatment or prevention of inflammatory diseases)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:23531 HCAPLUS

DOCUMENT NUMBER: 138:90079

TITLE: Preparation of N-arylsulfonyl aza-bicyclic derivatives

as potent cell adhesion inhibitors

INVENTOR(S): Lin, Linus S.; Doherty, George; Shah, Shrenik K.;

Chang, Linda L.; Hagmann, William K.; Mumford, Richard

Α.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 31 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2003008861 A1 20030109 US 2002-96607 20020313

PRIORITY APPLN. INFO.: US 2001-277233P P 20010320

OTHER SOURCE(S): MARPAT 138:90079

GI

AB Compds. I [R2 is an (un)substituted cycloalkyl or heterocyclyl ring; R1 = H, alkyl, arylalkyl; R2, R4 = halo, alkyl, alkoxy; R3 = H, OH, MeO, NH2; Z = N or N:O; Ar1 = (un)substituted Ph, pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, or triazinyl; Ar2 = 1,4-phenylene or 2,5-pyridylene; X, Y = (CH2)0-2; R5 = H, alkyl; R6, R7 = H, alkyl, OH, alkoxy, carboxy, amino, sulfonylamino, etc.] or their pharmaceutically-acceptable salts were prepd. as antagonists of VLA-4 and/or .alpha.4/.beta.7 and as such are useful in the inhibition or prevention of cell adhesion and cell-adhesion mediated pathologies. Thus, N-[N-(3,5-dichlorobenzenesulfonyl)octahydrois oindole-1-carbonyl]-4-[(3,5-dichloroisonicotinoyl)amino]-L-phenylalanine was prepd. by coupling of N-(3,5-dichlorobenzenesulfonyl)octahydroisoindol e-1-carboxylic acid chloride with 4-[(3,5-dichloroisonicotinoyl)amino]-L-phenylalanine tert-Bu ester (syntheses given), followed by sepn. of diastereomers and ester cleavage.

IT 462123-55-3P 462124-43-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-arylsulfonyl heteroaroyl amino acid derivs. as cell adhesion inhibitors)

L17 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:965131 HCAPLUS

DOCUMENT NUMBER: 138:24961

TITLE: Preparation of N-arylsulfonyl aryl aza-bicyclic derivatives as potent cell adhesion inhibitors

INVENTOR(S): Lin, Linus S.; Shah, Shrenik K.; Chang, Linda L.;

Hagmann, William K.; Mumford, Richard A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 19 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2002193399 A1 20021219 US 2002-97028 20020313
US 6559174 B2 20030506

PRIORITY APPLN. INFO.: US 2001-277235P P 20010320

OTHER SOURCE(S): MARPAT 138:24961

GI

Compds. I [R2 is an (un) substituted (hetero) aryl ring; R1 = H, alkyl, AB arylalkyl; R2, R4 = halo, alkyl, alkoxy; R3 = H, OH, MeO, NH2; Z = N or N:O; Arī = (un)substituted Ph, pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, or triazinyl; Ar2 = 1,4-phenylene or 2,5-pyridylene; X, Y = (CH2)0-2] or their pharmaceutically-acceptable salts were prepd. as antagonists of VLA-4 and/or .alpha.4/.beta.7 and as such are useful in the inhibition or prevention of cell adhesion and cell-adhesion mediated pathologies. Thus, N-[N-(4-methylbenzenesulfonyl)-1,3-dihydro-2H-methylbenzenesulfonyl)isoindole-1-carbonyl]-4-[(3',5'-dichloroisonicotinoyl)amino]-Lphenylalanine was prepd. by coupling of N-(4-methylbenzenesulfonyl)-1,3dihydro-2H-isoindole-1-carboxylic acid with 4-[(3',5'dichloroisonicotinoyl)amino]-L-phenylalanine tert-Bu ester (syntheses given), followed by ester cleavage using TFA.

ΙT 462123-55-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-arylsulfonyl heteroaroyl amino acid derivs. as cell adhesion inhibitors)

L17 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

2002:736247 HCAPLUS ACCESSION NUMBER:

137:263299 DOCUMENT NUMBER:

Preparation of substituted N-(arylsulfonyl)proline TITLE:

derivatives as potent cell adhesion inhibitors

INVENTOR(S): Doherty, George; Lin, Linus S.; Hagmann, William K.;

Kamenecka, Theodore M.; Yang, Ginger Xu-Qiang; Chang,

Linda L.; Shah, Shrenik K.; Mumford, Richard A.

PATENT ASSIGNEE(S): Merck & Co., Inc., USA SOURCE: PCT Int. Appl., 125 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PA	TENT	NO.		KI	ND I	DATE			A	PPLI	CATI	ои ис	o.	DATE				
WO	2002	0747	61	Α.	1	2002	0926		W	20	02-U	S806)	20020	0314			
	W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	ΑZ,	BA,	BB,	BG,	BŔ,	BY,	BZ,	CA,	CH,	CN,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,	
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	OM,	PH,	PL,	
														TR,				
		UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM
	RW:	GH,	GM,	KE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	ΤZ,	UG,	ZM,	ZW,	ΑT,	BE,	CH,	
		CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	
		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG	
PRIORIT	Y APP	LN.	INFO	. :				1	US 2	001-	2772	30P	P	2001	0320			
OTHER S	HER SOURCE(S):					MARPAT 137:263299												

GI

Compds. I [A is N or N:O; Y, Y' = halo, alkyl, alkoxy; R1 = H, alkyl, AΒ arylalkyl; R2 = H, alkyl; R3a, R3b is H, alkyl, alkenyl, cycloalkyl, OH, CO2H or ester, (hetero)aryl; one of these groups may also be OH, carboxamido, amino, etc.; R4a and R4b are oxo; R5 = H, OH, MeO, NH2; Ar1 = (un) substituted Ph, pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl, or triazinyl; X = null, CH2, CH2CH2; Z = CH or N] or their pharmaceutically-acceptable salts are claimed as antagonists of VLA-4 and/or .alpha.4.beta.7 integrin and thus useful in the inhibition or prevention of cell adhesion and cell-adhesion mediated pathologies. compds. may be formulated into pharmaceutical compns. and are suitable for use in the treatment of asthma, inflammatory bowel disease, multiple sclerosis, etc. Thus, N-[N-(3,5-dichlorobenzenesulfonyl)-2-methyl-Lprolyl]-4-[(3',5'-dichloroisonicotinoyl)amino]-L-phenylalanine Me ester was prepd. via peptide coupling in soln.

IT 462123-55-3P 462124-43-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of substituted (arylsulfonyl) proline derivs. as potent cell adhesion inhibitors)

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

HCAPLUS COPYRIGHT 2003 ACS on STN L17 ANSWER 7 OF 29

ACCESSION NUMBER: 2002:675997 HCAPLUS

DOCUMENT NUMBER: 137:217241

TITLE: Preparation of phenylalanine enamide derivatives

possessing a cyclobutene group for use as integrin

inhibitors

Bailey, Stuart; Brown, Julien Alistair; Brand, INVENTOR(S):

Stephen; Johnson, James Andrew; Porter, John Robert;

Head, John Clifford

PATENT ASSIGNEE(S): Celltech R & D Limited, UK

SOURCE: PCT Int. Appl., 201 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PA	rent	NO.		KI	ND	DATE			A)	PPLI	CATI	ON NO	Э.	DATE			
									_								
WO	2002	0683	93	A	1	2002	0906		W	20	02 - G	B206		2002	0118		
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
						DE,											
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR_{\star}
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜŻ,	NO,	ΝZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	ΤZ,

Robinson 09 326020

UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 20031029 GB 2003-18429 20020118 GB 2387845 Α1 US 2002-81072 US 2002169336 20021114 20020222 Α1 GB 2001-4418 A 20010222 PRIORITY APPLN. INFO .: GB 2001-14000 Α 20010608 GB 2001-27562 Α 20011116 WO 2002-GB206 W 20020118 MARPAT 137:217241

OTHER SOURCE(S):

GΙ

$$R^{1}-X$$
 R^{2}
 R^{3}
 R^{4}
 V
 I

Phenylalanine enamide derivs. I [Rl is a group Ar1-L2-Ar2-Alk- in which AB Ar1 is an optionally substituted (hetero) arom. group, L2 is a covalent bond or a linker atom or group, Ar2 is an optionally substituted (hetero)arylene group, and Alk is CH2CHCO2H, CH:CCO2H, or CHCH2CO2H or a deriv. or biostere; X = O, S, NH or alkylimino; V = O or S; R2, R3, R4 = L1-(Alk1)n(R5)v, in which L1 is a covalent bond or a linker atom or group, Alk1 is an optionally substituted (hetero)aliph. chain, R5 = H, halo, OH, SH, CN, (un) substituted (cyclo) alkoxy, (cyclo) alkylthio, (hetero)(poly)cycloaliph. or (hetero)arom. group; n = 0 or 1, and v = 1-3] were prepd. Compds. I inhibit the binding of integrins to their ligands and are of use in the prophylaxis and treatment of immuno or inflammatory disorders or disorders involving the inappropriate growth or migration of cells. Thus, (2S)-2-[(3-oxospiro[3.5]non-1-en-1-yl)amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1)]amino]-3-[4-[(3,5-1dichloroisonicotinoyl)amino]phenyl]propanoic acid (claimed compd.) was prepd. by reaction of Et (2S)-2-amino-3-[4-[(3,5dichloroisonicotinoyl)amino]phenyl]propanoate (prepn. given) with 1-keto-3-hydroxyspiro[3.5]non-2-ene, followed by hydrolysis.

263276-03-5P 455264-94-5P IT

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of phenylalanine enamide derivs. possessing a cyclobutene group for use as integrin inhibitors)

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 3 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

HCAPLUS COPYRIGHT 2003 ACS on STN L17 ANSWER 8 OF 29

ACCESSION NUMBER: 2002:555472 HCAPLUS

137:125085 DOCUMENT NUMBER:

TITLE: Preparation of urea derivatives as integrin alpha 4

antagonists

INVENTOR(S): Jimenez Mayorga, Juan Miguel; Bach Tana, Jordi;

Ontoria Ontoria, Jesus Maria; Navarro Romero, Eloisa

Almirall Prodesfarma, S.A., Spain PATENT ASSIGNEE(S):

SOURCE: PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

```
PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                      ____
                            _____
     WO 2002057242
                      A2
                            20020725
                                           WO 2002-EP331
                                                            20020115
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
                                                                     OM. PH.
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     EE 200300327
                            20031015
                                           EE 2003-327
                                                            20020115
                       Α
                                           NO 2003-3269
     NO 2003003269
                       Α
                            20030919
                                                            20030718
                                                         A 20010119
PRIORITY APPLN. INFO.:
                                        ES 2001-126
                                                         W 20020115
                                        WO 2002-EP331
                         MARPAT 137:125085
OTHER SOURCE(S):
GI
```

$$R^{1} \stackrel{L^{1}}{\longrightarrow} Y \stackrel{R^{2}}{\longrightarrow} N \stackrel{R^{3}}{\longrightarrow} Z$$

í

The title compds. [I; R1 = alkyl, alkenyl, cycloalkyl, etc.; R2 = H, AB alkyl, alkylaryl, etc.; R3, R4 = H, alkyl; R2 and R3, together with the atoms to which they are attached, may form a 4-8 membered ring; R5 = alkyl, cycloalkyl, aryl, etc.; L1 = S, SO, SO2, CO, etc.; L2 = a bond, O, S, SO, etc.; W = O, S, (un)substituted NH, N(CN); X = (CH2)naryl, (CH2) nheteroaryl; Y = monocyclic (hetero) aryl; Z = CONH2, CO2R, PO3R, SO3R, etc.; R = H, alkyl, cycloalkyl, etc.; n = 0-2], novel antagonists of .alpha.4.beta.1 integrin and/or .alpha.4.beta.7 integrin useful in preventing or treating an immune or inflammatory diseases or disorders, were prepd. and formulated. Thus, reacting 2-amino-N-cyclohexyl-Nmethylbenzamide with (S)-3-[4-(2,6-dichlorobenzoylamino)phenyl]-2isocyanatopropionic acid Me ester (prepn. given) in CH2Cl2 (yield 50%) followed by hydrolysis of the intermediate ester (77%) afforded (S)-II which showed IC50 of < 100 nM in the .alpha.4.beta.1 assay. ΙT 444086-35-5P 444086-37-7P 444086-39-9P

444086-35-5P 444086-37-7P 444086-39-9P 444086-41-3P 444086-43-5P 444086-52-6P

```
444086-61-7P 444086-63-9P 444086-65-1P
     444086-67-3P 444086-69-5P 444086-71-9P
     444086-73-1P 444086-81-1P 444086-87-7P
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (prepn. of ureas as integrin alpha 4 antagonists)
     444086-36-6P 444086-38-8P 444086-40-2P
IT
     444086-42-4P 444086-44-6P 444086-51-5P
     444086-53-7P 444086-54-8P 444086-55-9P
     444086-56-0P 444086-57-1P 444086-58-2P
    1444086-59-3P 444086-60-6P 444086-62-8P
     444086-64-0P 444086-66-2P 444086-68-4P
     444086-70-8P 444086-72-0P 444086-74-2P
     444086-75-3P 444086-76-4P 444086-77-5P
     444086-78-6P 444086-82-2P 444086-88-8P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (prepn. of ureas as integrin alpha 4 antagonists)
IT
     444087-42-7P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of ureas as integrin alpha 4 antagonists)
L17 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
                        2002:552324 HCAPLUS
ACCESSION NUMBER:
                        137:109488
DOCUMENT NUMBER:
                        Preparation of peptidyl calcium channel blockers
TITLE:
                        Booth, Richard John; Brogley, Louis; Cody, Wayne
INVENTOR(S):
                        Livingston; Connor, David Thomas; Hamilton, Harriet
                        Wall; He, John Xiaoqiang; Hu, Lain-Yen; Lescosky,
                        Leonard Joseph; Malone, Thomas Charles; Nadasdi,
                        Laszlo; Rafferty, Michael Francis; Roth, Bruce David;
                        Silva, Diego F.; Song, Yuntao; Szoke, Balazs G.; Urge,
                        Laszlo
                        Warner-Lambert Company, USA; Neurex Corporation
PATENT ASSIGNEE(S):
SOURCE:
                        U.S., 86 pp.
                        CODEN: USXXAM
DOCUMENT TYPE:
                        Patent
                        English
LANGUAGE:
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                 KIND DATE APPLICATION NO. DATE
    PATENT NO.
                     ----
                                         US 1998-212785 19981216
    US 6423689 B1
                           20020723
PRIORITY APPLN. INFO.:
                                       US 1997-68485P P 19971222
                        MARPAT 137:109488
OTHER SOURCE(S):
    Peptides R5CONHCR1R7CONHCR2(CH2-p-C6H4-Y-R4)COR3 [R1 = alkyl, benzyl, H,
     indolylmethyl, Q-(CH2)n (Q = alkylthio, substituted Ph, cycloalkyl,
    heteroaryl; n = 0-5); R2 = H, alkyl; R3 = alkoxy, Ph(CH2)nO, NH2,
    alkylamino, cycloalkyl, etc.; R4 = Q(CH2)n, where Q = (un)substituted Ph,
    NH2, dialkylamino, pyridyl, etc.; R5 = N(CH2)m (m = 2-7); R7 = H, alkyl; Y
    = O, NR4, NH, absent, CH:CH, C.tplbond.C] or their pharmaceutically
    acceptable salts, esters, amides, and prodrugs were prepd. as calcium
    channel blockers. Pharmaceutical compns. contg. these compds. can be used
     to treat stroke, cerebral ischemia, head trauma, or epilepsy. Thus,
     [S-(R^*,R^*)]-2-[2-[(azepane-1-carbonyl)amino]-4-methylpentanoylamino]-3-(4-
    benzyloxy-phenyl)propionic acid tert-Bu ester was prepd. via amidation_
     reaction and showed IC50 = 0.35 .mu.M for inhibition of calcium flux in
     IMR-32 cells and protected 5/5 mice from tonic convulsions at 30 mg/kg at
```

15 min posttreatment time. The syntheses of 271 compds. of the invention

are described in the examples and > 200 addnl. compds. are given in the claims.

443690-13-9P 443690-14-0P 443690-20-8P ΙT

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of peptidyl calcium channel blockers)

REFERENCE COUNT: THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

HCAPLUS COPYRIGHT 2003 ACS on STN L17 ANSWER 10 OF 29

ACCESSION NUMBER:

2002:516582 HCAPLUS

DOCUMENT NUMBER:

137:87495

TITLE:

Radiopharmaceuticals for imaging infection and

inflammation

INVENTOR(S):

Barrett, John A.; Cheesman, Edward H.; Harris, Thomas D.; Liu, Shuang; Rajopadhye, Milind; Sworin, Michael

PATENT ASSIGNEE(S): Bristol-Myers Squibb Pharma Company, USA

SOURCE:

U.S., 128 pp.

DOCUMENT TYPE:

CODEN: USXXAM

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6416733	В1	20020709	US 1997-943659	19971003
US 2003007927	A1	20030109	US 2002-109374	20020327
US 2003124053	A1	20030703	US 2002-151663	20020520
PRIORITY APPLN. INFO.	:		US 1996-27955P P	19961007
			IIS 1997-943659 A1	19971003

OTHER SOURCE(S):

MARPAT 137:87495

GI

The present invention provides novel radiopharmaceuticals useful for the AΒ diagnosis of infection and inflammation, reagents and kits useful for prepg. the radiopharmaceuticals, methods of imaging sites of infection and/or inflammation in a patient, and methods of diagnosing diseases assocd. with infection or inflammation in patients in need of such diagnosis. The radiopharmaceuticals bind in vivo to the leukotriene B4 (LTB4) receptor on the surface of leukocytes which accumulate at the site of infection and inflammation. The reagents provided by this invention are also useful for the treatment of diseases assocd. with infection and inflammation. Thus, the leukotriene antagonist (I) was prepd. and shown to be active in an LTB4 human neutrophil (PMN) binding assay. Compd. I

was used to prep. 99mTc(tricine)(TPPTS)(4-ethyl-2-(4-fluorophenyl)-[5-[5,5-dimethyl-6-[[[6-diazenido-3-pyridinyl]carbonyl]amino]hexyl]oxy]phenol)(TPPTS = tri(3-sulfonatophenyl)phosphine, sodium salt) which was used to detect inflammation/infection in guinea pig and rabbit focal infection models.

IT 206266-68-4P, L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[5[(4,6-diphenyl-2-pyridinyl)oxy]pentyl]-, phenylmethyl ester
206266-69-5P, L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-[5[(4,6-diphenyl-2-pyridinyl)oxy]pentyl]-

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate for prepn. of leukotriene antagonist ligands and their 99mTc complexes for imaging and treatment of infection and inflammation)

IT 206263-76-5P, L-Tyrosine, N-[2,2-dimethyl-1-oxo-6-[[5,6,7,8tetrahydro-5-oxo-1-(2-propenyl)-2-naphthalenyl]oxy]hexyl]-O-[3-[[[6-[[(2-.
sulfophenyl)methylene]hydrazino]-3-pyridinyl]carbonyl]amino]propyl]RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. as leukotriene antagonist ligands for imaging and treatment of infection and inflammation)

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:407947 HCAPLUS

DOCUMENT NUMBER: 138:66140

TITLE: Focused library approach for identification of new

N-acylphenylalanines as VCAM/VLA-4 antagonists

AUTHOR(S): Chen, Li; Trilles, Richard; Miklowski, Dorota; Huang,

Tai-Nan; Fry, David; Campbell, Robert; Rowan, Karen;

Schwinge, Virginia; Tilley, Jefferson W.

CORPORATE SOURCE: Roche Research Center, Hoffmann-La Roche Inc., Nutley,

NJ, 07110, USA

Ι

SOURCE: Bioorganic & Medicinal Chemistry Letters (2002),

12(12), 1679-1682

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:66140

GΙ

AB A structure-based focused library approach was employed in an effort to identify more lipophilic replacements for the N-benzylpyroglutamyl group of the VCAM-1/VLA-4 antagonist I. This effort led to the discovery of two new classes of potent antagonists characterized by the

N-(.alpha.-phenylcyclopentanoyl)- and the N-(2,6-dimethylbenzoyl)-derivs. IT 479641-68-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(focused library approach for identification of new

N-acylphenylalanines as VCAM/VLA-4 antagonists)

REFERENCE COUNT: THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS 21 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

2002:353325 HCAPLUS ACCESSION NUMBER:

136:362949 DOCUMENT NUMBER:

Technetium-99m and indium-111 complexes for TITLE:

simultaneous dual isotope imaging of perfusion and

inflammation

Carpenter, Alan P., Jr. INVENTOR(S):

Bristol-Myers Squibb Pharma Company, USA PATENT ASSIGNEE(S):

PCT Int. Appl., 439 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent

English LANGUAGE:

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

GΙ

APPLICATION NO. DATE PATENT NO. KIND DATE ______ A2 A3 20020510 WO 2001-US46153 20011102 WO 2002036173 20020926 WO 2002036173 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2002030576 A5 20020515 AU 2002-30576 20011102 US 2003003049 Α1 20030102 US 2001-2359 20011102 EP 2001-990810 20011102 20031001 EP 1347784 Α2 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR PRIORITY APPLN. INFO.: US 2000-245554P P 20001103 WO 2001-US46153 W 20011102 OTHER SOURCE(S): MARPAT 136:362949

- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- The present invention provides novel diagnostic compns., e.g., 99mTc complex of I or 111In complex of II, comprising a radiolabeled LTB4 binding agent and a radiolabeled perfusion imaging agent, wherein the radiolabeled agents have spectrally separable energies, diagnostic kits comprising such compns., and methods of concurrent imaging in a mammal comprising administering a radiolabeled LTB4 binding agent and a radiolabeled perfusion imaging agent, and concurrently detecting the radiolabeled LTB4 binding agent bound at the LTB4 receptor and the radiolabeled perfusion imaging agent. The method is for use in concurrent imaging sites of inflammation and organ perfusion.
- IT 206266-68-4P 206266-69-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate for prepn. of leukotriene antagonist ligands and their 99mTc complexes for simultaneous dual isotope imaging of perfusion and inflammation)

206263-76-5P ΙT

RL: BSU (Biological study, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES

(prepn. as leukotriene antagonist ligands for simultaneous dual isotope imaging of perfusion and inflammation)

L17 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

2002:142667 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:200103

Preparation of (thio)urea moiety-containing TITLE:

heterocyclic compounds as VLA-4 antagonists

Fukui, Hideto; Ikegami, Satoru; Okuyama, Akihiko INVENTOR(S):

Kaken Pharmaceutical Co., Ltd., Japan PATENT ASSIGNEE(S):

PCT Int. Appl., 43 pp. SOURCE:

CODEN: PIXXD2

Patent DOCUMENT TYPE: Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND DATE					A	PPLI	CATI	N NC	ο.	DATE			
- M	VO 2002	0142	72	 A	 1	2002	0221		W	0 20	01-J	P683	 3	2001	0808		
	W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	ΕE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	ΗU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	PL,	PT,
		RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,
		UZ,	VN,	YU,	ZA,	ZW,	ΑM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM		
	RW:	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	ΤG	
P	AU 2001	0777:	20	A	5	2002	0225		A	U 20	01-7	7720		2001	8080		
PRIORI	TY APP	LN.	INFO	. :					JP 2	000-	2416	57	Α	2000	0809		
								1	WO 2	001-	JP68:	33	W	2001	8080		
OTHER	SOURCE	(S):			MAR	PAT	136:	2001	03								

Ι

GΙ

The title compds. I [R1 = H, alkyl, etc.; X1 = single bond, C.tplbond.C, AB etc.; Y = O, etc.; Z = NR7R8, etc.; R7, R8 = H, hydrocarbon, etc.; X2 = heterocyclic ring (generic structure given); further details on said heterocyclic ring are given] are prepd. A process for the prepn. of I is claimed. In an assay for inhibition of VLA-4/VCAM-1 adhesion,

Robinson 09 326020

```
3-[4-[(3,5-dichloropyridine-4-carbonyl)amino]phenyl]-2-(S)-[3-isobutyl-3-
     [1(S)-phenylethyl]ureido]propionic acid showed IC50 of 1.1 nM.
     401470-70-0P 401470-72-2P 401470-73-3P
ΙT
     401470-74-4P 401470-75-5P 401470-84-6P
     401470-85-7P 401470-86-8P 401470-87-9P
     401470-88-0P 401470-89-1P 401470-90-4P
     401471-00-9P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
     (Uses)
        (prepn. of (thio) urea moiety-contg. heterocyclic compds. as VLA-4
        antagonists)
     401471-09-8P
IT
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of (thio) urea moiety-contg. heterocyclic compds. as VLA-4
        antagonists)
REFERENCE COUNT:
                         6
                               THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L17 ANSWER 14 OF 29
                      HCAPLUS COPYRIGHT 2003 ACS on STN
                         2002:90040 HCAPLUS
ACCESSION NUMBER:
                         136:135022
DOCUMENT NUMBER:
TITLE:
                         Preparation of heteroaryl-.beta.-alanine derivatives
                         as antiinflammatory agents and .alpha.4 integrin
                         inhibitors
                         Konradi, Andrei W.; Pleiss, Michael A.; Thorsett,
INVENTOR(S):
                         Eugene D.; Ashwell, Susan; Welmaker, Gregory S.;
                         Kreft, Anthony; Sarantakis, Dimitrios; Dressen, Darren
                         B.; Grant, Francine S.; Semko, Christopher; Xu,
                         Ying-Zi
                         Elan Pharmaceuticals, Inc., USA; American Home
PATENT ASSIGNEE(S):
                         Products Corporation
                         PCT Int. Appl., 141 pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                            DATE
                                           APPLICATION NO.
     PATENT NO.
                      KIND
                            _____
                                           -----
                                           WO 2001-US23096 20010720
    WO 2002008222
                      A2
                            20020131
    WO 2002008222
                      А3
                            20020613
             AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2002086882
                       A1
                            20020704
                                           US 2001-910431
                                                            20010719
                                        US 2000-220128P P 20000721
PRIORITY APPLN. INFO.:
                         MARPAT 136:135022
OTHER SOURCE(S):
```

GΙ

Disclosed are a series of heteroaryl-.beta.-alanine derivs. I wherein R is AB a carboxylic acid; R1 and R2 are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, cycloalkyl, substituted cycloalkyl, or R1 and R2, together with the nitrogen atom to which they are attached, are joined to form an optionally substituted heterocyclic ring provided that said substituted alkyl, substituted alkenyl and substituted cycloalkyl do not carry an aryl, substituted aryl, heteroaryl or substituted heteroaryl group; Ra and R3 are independently a hydrogen or a Me group; R4 and R5 are independently selected from the group consisting of heteroatom group; n is zero or an integer 1; Alk is a straight or branched alkylene chain; Ar is an optionally substituted arom. or heteroarom. group, as well as their pharmaceutical use as .alpha.4.beta.7 Integrin inhibitors for the treatment of inflammatory diseases. Thus, 3-[4-(3,5-dichloropyrid-4ylcarboxamido)phenyl]-2-(3-chlorophenylamino)propanoic acid was prepd. as .alpha.4 Integrin inhibitor. The preferred compds. of the invention generally have IC50 values in the .alpha.4.beta.1 and .alpha.a.beta.7 assays of 1 .mu.M and below. In the other assays featuring .alpha. integrins of other subgroups the same compds. had IC50 values of 50 .mu.M and above thus demonstrating the potency and selectivity of their action against .alpha.4 integrins. Title compds. were prepd. for treating an inflammatory condition in a mammalian patient which condition is mediated by Very Late Antigen 4 (VLA-4). Inflammatory condition is selected from the group consisting of asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, multiple sclerosis, rheumatoid arthritis, tissue transplantation, tumor metastasis, meningitis, encephalitis, stroke, nephritis, retinitis, atopic dermatitis, psoriasis, myocardial ischemia and acute leukocyte-mediated lung injury.

L17 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:90026 HCAPLUS

DOCUMENT NUMBER: 136:135019

TITLE: Preparation of 3-amino-2-(4-aminocarbonyloxy)phenyl-

propionic acid derivatives as antiinflammatory agents

and .alpha.4 Integrin inhibitors

INVENTOR(S): Konradi, Andrei W.; Pleiss, Michael A.; Thorsett,

Eugene D.; Ashwell, Susan; Welmaker, Gregory S.;

Kreft, Anthony; Sarantakis, Dimitrios; Dressen, Darren

B.; Grant, Francine S.; Xu, Ying-Zi

PATENT ASSIGNEE(S): Elan Pharmaceuticals, Inc., USA; American Home

Products Corporation

SOURCE: PCT Int. Appl., 137 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

TΨ

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                     KIND
                           DATE
                                          APPLICATION NO.
                           20020131
                                         WO 2001-US23073 20010720
    WO 2002008206
                     A1
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ,
            VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                     A1
                                          US 2001-910685 20010720
     US 2002055509
                           20020509
                                        US 2000-220134P P 20000721
PRIORITY APPLN. INFO.:
                        MARPAT 136:135019
OTHER SOURCE(S):
GI
```

Ι

3-Amino-2-(4-aminocarbonyloxy)phenyl-propionic acid derivs. I wherein R is AB a carboxylic acid; R1 and R2 are independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, cycloalkyl, substituted cycloalkyl, or R1 and R2, together with the nitrogen atom to which they are attached, are joined to form an optionally substituted heterocyclic ring provided that said substituted alkyl, substituted alkenyl and substituted cycloalkyl do not carry an aryl, substituted aryl, heteroaryl or substituted heteroaryl group; Ra and R3 are independently a hydrogen or a Me group; R4 and R5 are independently selected from the group consisting of heteroatom group; n is zero or an integer 1; Alk is a straight or branched alkylene chain; Ar is an optionally substituted arom. or heteroarom. group, as well as their pharmaceutical use as .alpha.4.beta.7 Integrin inhibitors for the treatment of inflammatory diseases. Thus, 3-[4-(3,5-dichloropyrid-4ylcarboxamido)phenyl]-2-(3-chlorophenylamino)propanoic acid was prepd. as .alpha.4 Integrin inhibitor. The preferred compds. of the invention generally have IC50 values in the .alpha.4.beta.1 and .alpha.a.beta.7 assays of 1 .mu.M and below. In the other assays featuring .alpha. integrins of other subgroups the same compds. had IC50 values of $50 \, .mu.M$ and above thus demonstrating the potency and selectivity of their action against .alpha.4 integrins. Title compds. were prepd. for treating an inflammatory condition in a mammalian patient which condition is mediated by Very Late Antigen 4 (VLA-4). Inflammatory condition is selected from the group consisting of asthma, Alzheimer's disease, atherosclerosis, AIDS dementia, diabetes, inflammatory bowel disease, multiple sclerosis, rheumatoid arthritis, tissue transplantation, tumor metastasis, meningitis, encephalitis, stroke, nephritis, retinitis, atopic dermatitis, psoriasis, myocardial ischemia and acute leukocyte-mediated lung injury. IT 263276-03-5P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. of aminoaminocarbonyloxyphenylpropionic acid derivs. as a

integrin inhibitors)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:812346 HCAPLUS

DOCUMENT NUMBER: 136:144646

TITLE: Structure-inhibitory activity relationship of plasmin

and plasma kallikrein inhibitors

AUTHOR(S): Tsuda, Yuko; Tada, Mayako; Wanaka, Keiko; Okamoto,

Utako; Hijikata-Okunomiya, Akiko; Okamoto, Shosuke;

Okada, Yoshio

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, and High

Technology Research Center, Kobe Gakuin University,

Kobe, 651-2180, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (2001), 49(11),

1457-1463

CODEN: CPBTAL; ISSN: 0009-2363
Pharmaceutical Society of Japan

PUBLISHER: Pharmace
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Based on the structure of Tra-Tyr(O-Pic)-octylamide, a portion of the octylamine was replaced with moieties bearing hydrophobic, basic or acidic groups. Replacement of the C-terminal residue with a moiety bearing a hydrophobic group gave the proper affinity of the inhibitor to both plasmin (PL) and plasma kallikrein (PK). While addn. of a basic residue did not improve the affinity of the inhibitor, a carboxylic acid attached to the Ph ring increased the PK selectivity of the inhibitor.

IT 39837-03-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(structure-inhibitory activity relationship of plasmin and plasma

kallikrein inhibitors)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:693265 HCAPLUS

DOCUMENT NUMBER: 135:242013

TITLE: Preparation of 4-(2-amino-2-carboxyethyl)benzoates as

.alpha.4.beta.1 and .alpha.4.beta.7 integrin

inhibitors

INVENTOR(S): Cooke, Nigel Graham; Sabio, Michael Lloyd Novartis A.-G., Switz.; Novartis-Erfindungen

Verwaltungsgesellschaft m.b.H.

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2001068586 A2 20010920 WO 2001-EP2749 20010312

WO 2001068586 A3 20020110

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2002091142 A1 20020711 US 2001-803303 20010309
PRIORITY APPLN. INFO::
US 2000-525700 A 20000314
US 2000-304184P P 20000314

OTHER SOURCE(S):

MARPAT 135:242013

Ι

GΙ

The title compds. (I) [wherein A = (hetero)arom. ring; Q = bond, CO, AB alkylene optionally substituted by OH or Ph, alkenylene, or O-alkylene; X = OR5 or NR5R6; R1, R2, and R3 = independently H, halo, OH, alkyl, alkoxy, NO2, NH2, carboxy (amide or ester), CN, alkylcarbonyl, alkylthio, alkylsulfonyl, sulfamoyl, Ph, or heterocyclic; or 2 of R1-R3 together form alkylenedioxy; R4 = H, alkyl(interrupted by 1 or more O), alkenyl, alkynyl, morpholinoalkyl, aminoalkyl, etc.; R5 and R6 = independently H, alkyl optionally substituted by F or (un)substituted (hetero)aryl; with proviso] and their pharmaceutically acceptable salts were prepd. as inhibitors of .alpha.4.beta.1 and/or .alpha.4.beta.7 integrins. For example, a mixt. of tert-Bu 4-[(S)-2-amino-2-methoxycarbonylethyl]benzoate .bul.HCl (prepn. given), (S)-3-acetylthiazolidine-4-carboxylic acid, 1-[3-(dimethylamino)propyl]-3-ethylcarbodiimide.bul.HCl, 1-hydroxy-7-azabenzotriazole, and di-isopropylethylamine in DMF was stirred at room temp. for 18 h to give II. One or more of the invention compds. was tested for cell adhesion inhibitory activity and exhibited IC 50 values as low as 1 nM for VLA-4 binding. I are useful in inhibiting cell adhesion and in the therapeutic or prophylactic treatment of transplant rejection and inflammatory and autoimmune diseases (no data). ΙT 360045-49-4P 360045-56-3P 360045-57-4P

360045-59-6P 360045-62-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of phenylalanine derivs. as .alpha.4.beta.1 and .alpha.4.beta.7 integrin inhibitors for treatment of inflammation, transplant rejection, and autoimmune diseases)

L17 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:380546 HCAPLUS

DOCUMENT NUMBER: 134:367194

TITLE: Preparation of novel phenylalanine derivatives as

.alpha.4-integrin inhibitors

INVENTOR(S): Tanaka, Yasuhiro; Yoshimura, Toshihiko; Izawa,

Hiroyuki; Ejima, Chieko; Kojima, Mitsuhiko; Atake, Yuko; Nakanishi, Eiji; Suzuki, Nobuyasu; Makino,

Shingo; Suzuki, Manabu; Murata, Masahiro

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 155 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.				KIND DATE					A	PPLI	CATI	ο.	DATE				
 WO	2001	0363	76	A	 1	2001	0525		W	0 20	00-J	P815:	2	2000	1120		
	W:	AE,	AG,	AL,	AM,	AT,	ΑU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
		SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
		YU,	ZA,	ZW,	AM,	AZ,	BY,	ΚĠ,	ΚZ,	MD,	RU,	ТJ,	TM				
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	ΤZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	ΙT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	ΤG		
ΑU	2001	0141	65	A.	5	2001	0530		Α	U 20	01-1	4165		2000	1120		
EΡ	1233	013		A	1	2002	0821		E	P 20	00-9	7634	7	2000	1120		
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR						
US	2003	1490	83	A.	1	2003	0807		U	S 20	02-1	5006	7	2002	0520		
ΙT	APP	LN.	INFO	.:					JP 1	999-	3284	68	Α	1999	1118		
									JP 2	000-	1971	39	Α	2000	0629		
									WO 2	000-	JP81	52	W	2000	1120		
Į.	AU EP	RW: AU 2001 EP 1233 R: US 2003	WO 20010363 W: AE, CR, HU, LU, SD, YU, RW: GH, DE, BJ, AU 20010141 EP 1233013 R: AT, IE, US 200314908	W: AE, AG, CR, CU, HU, ID, LU, LV, SD, SE, YU, ZA, RW: GH, GM, DE, DK, BJ, CF, AU 2001014165 EP 1233013 R: AT, BE, IE, SI, US 2003149083	WO 2001036376 A W: AE, AG, AL, CR, CU, CZ, HU, ID, IL, LU, LV, MA, SD, SE, SG, YU, ZA, ZW, RW: GH, GM, KE, DE, DK, ES, BJ, CF, CG, AU 2001014165 A R: AT, BE, CH, IE, SI, LT, US 2003149083 A	WO 2001036376 A1 W: AE, AG, AL, AM, CR, CU, CZ, DE, HU, ID, IL, IN, LU, LV, MA, MD, SD, SE, SG, SI, YU, ZA, ZW, AM, RW: GH, GM, KE, LS, DE, DK, ES, FI, BJ, CF, CG, CI, AU 2001014165 A5 EP 1233013 A1 R: AT, BE, CH, DE, IE, SI, LT, LV, US 2003149083 A1	WO 2001036376 A1 2001 W: AE, AG, AL, AM, AT, CR, CU, CZ, DE, DK, HU, ID, IL, IN, IS, LU, LV, MA, MD, MG, SD, SE, SG, SI, SK, YU, ZA, ZW, AM, AZ, RW: GH, GM, KE, LS, MW, DE, DK, ES, FI, FR, BJ, CF, CG, CI, CM, AU 2001014165 A5 2001 EP 1233013 A1 2002 R: AT, BE, CH, DE, DK, IE, SI, LT, LV, FI, US 2003149083 A1 2003	W: AE, AG, AL, AM, AT, AU, CR, CU, CZ, DE, DK, DM, HU, ID, IL, IN, IS, JP, LU, LV, MA, MD, MG, MK, SD, SE, SG, SI, SK, SL, YU, ZA, ZW, AM, AZ, BY, RW: GH, GM, KE, LS, MW, MZ, DE, DK, ES, FI, FR, GB, BJ, CF, CG, CI, CM, GA, AU 2001014165 A5 20010530 EP 1233013 A1 20020821 R: AT, BE, CH, DE, DK, ES, IE, SI, LT, LV, FI, RO, US 2003149083 A1 20030807	WO 2001036376 A1 20010525 W: AE, AG, AL, AM, AT, AU, AZ, CR, CU, CZ, DE, DK, DM, DZ, HU, ID, IL, IN, IS, JP, KE, LU, LV, MA, MD, MG, MK, MN, SD, SE, SG, SI, SK, SL, TJ, YU, ZA, ZW, AM, AZ, BY, KG, RW: GH, GM, KE, LS, MW, MZ, SD, DE, DK, ES, FI, FR, GB, GR, BJ, CF, CG, CI, CM, GA, GN, AU 2001014165 A5 20010530 EP 1233013 A1 20020821 R: AT, BE, CH, DE, DK, ES, FR, IE, SI, LT, LV, FI, RO, MK, US 2003149083 A1 20030807 ITY APPLN. INFO.:	W: AE, AG, AL, AM, AT, AU, AZ, BA, CR, CU, CZ, DE, DK, DM, DZ, EE, HU, ID, IL, IN, IS, JP, KE, KG, LU, LV, MA, MD, MG, MK, MN, MW, SD, SE, SG, SI, SK, SL, TJ, TM, YU, ZA, ZW, AM, AZ, BY, KG, KZ, RW: GH, GM, KE, LS, MW, MZ, SD, SL, DE, DK, ES, FI, FR, GB, GR, IE, BJ, CF, CG, CI, CM, GA, GN, GW, AU 2001014165 A5 20010530 A EP 1233013 A1 20020821 E R: AT, BE, CH, DE, DK, ES, FR, GB, IE, SI, LT, LV, FI, RO, MK, CY, US 2003149083 A1 20030807 U JP 1 JP 2	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, HU, ID, IL, IN, IS, JP, KE, KG, KP, LU, LV, MA, MD, MG, MK, MN, MW, MX, SD, SE, SG, SI, SK, SL, TJ, TM, TR, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, DE, DK, ES, FI, FR, GB, GR, IE, IT, BJ, CF, CG, CI, CM, GA, GN, GW, ML, AU 2001014165 A5 20010530 AU 20 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, SI, LT, LV, FI, RO, MK, CY, AL, US 2003149083 A1 20030807 US 20 JP 1999-JP 2000-	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, AU 2001014165 A5 20010530 AU 2001-18 EP 1233013 A1 20020821 EP 2000-9 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2003149083 A1 20030807 US 2002-18 ITY APPLN. INFO:: JP 1999-3284 JP 2000-1971	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, AU 2001014165 A5 20010530 AU 2001-14165 A5 20010530 AU 2001-14165 A5 20010530 AU 2001-14165 A1 20020821 EP 2000-97634 A1 20020821 EP 2000-97634 A1 20030149083 A1 20030807 US 2002-15006 A1 2003149083 A1 20030807 US 2002-15006 A1 2000-197139	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, AU 2001014165 A5 20010530 AU 2001-14165 A5 20010530 AU 2001-14165 EP 1233013 A1 20020821 EP 2000-976347 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2003149083 A1 20030807 US 2002-150067 JP 1999-328468 A JP 2000-197139 A	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, AU 2001014165 A5 20010530 AU 2001-14165 2000 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2003149083 A1 20030807 US 2002-150067 2002 JP 1999-328468 A 1999 JP 2000-197139 A 2000	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 2001014165 AS 20010530 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2003149083 A1 20030807 US 2002-150067 20020520 JP 1999-328468 A 19991118 JP 2000-197139 A 20000629	WO 2001036376 A1 20010525 WO 2000-JP8152 20001120 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 2001014165 A5 20010530 AU 2001-14165 20001120 EP 1233013 A1 20020821 EP 2000-976347 20001120 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2003149083 A1 20030807 US 2002-150067 20020520 ITY APPLN. INFO:: JP 1999-328468 A 19991118 JP 2000-197139 A 20000629

OTHER SOURCE(S):

MARPAT 134:367194

GΙ

$$K-Z = \begin{bmatrix} G & F & E & COB \\ & & & & \\ C & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & &$$

Phenylalanine derivs. represented by general formula (I) or pharmaceutically acceptable salts thereof [wherein X represents an interat. bond, O, OSO2, N-(un)substituted NH, NHCO, NHSO2, NHCONH, or NH(CS)NH, CO; Y and Z represent each CO, SO, or SO2; A represents a specific substituted Ph group or nitrogen-contg. heterocycle such as arom.-fused pyrimidinedione or pyrimidinone, 2,4- or 2,5-imidazolidinedione, or 5-imidazolone; C represents hydrogen, lower alkyl, lower alkenyl, lower alkynyl, cyclic alkyl-lower alkyl optionally contg. heteroatoms in the ring, aryl-lower alkyl, heteroaryl-lower alkyl; D and E represent each lower alkyl, lower alkenyl, lower alkynyl, cyclic alkyl-lower alkyl optionally contg. heteroatoms in the ring, aryl-lower alkyl, heteroaryl-lower alkyl, etc. or D and E may be bonded to each other

to form a ring optionally contg. 1 or 2 O, N, or S in the ring; F and G represent each hydrogen, lower alkyl, lower alkenyl, lower alkynyl, cyclic alkyl-lower alkyl optionally contg. heteroatoms in the ring, aryl-lower alkyl, heteroaryl-lower alkyl, etc. or F and G may be bonded to each other to form a ring; n is from 0 to 2; K represents OR7, NR7R8, NHNR7R8, SR7, or R7; R7 and R8 represents H, lower alkyl, etc.; and J and J' represent each hydrogen, halogeno, lower alkyl, lower alkoxy, or NO2] are prepd. These derivs. and analogs thereof show an .alpha.4 integrin inhibitory activity and are usable as remedies for various diseases relating to .alpha.4 integrin, such as inflammatory diseases related to .alpha.4 integrin-dependent adhesion process, arthritis, inflammatory intestinal diseases, systemic lupus erythematosus, multiple sclerosis, Sjoegren syndrome, psoriasis, allergy, diabetes, cardiovascular diseases, arteriosclerosis, restenosis, tumor proliferation, tumor metastasis, or transplant rejection. Thus, O-(2,6-dichlorobenzyl)-L-tyrosine bound to Wang resin was allowed to react with diethylmalonic acid, HOAt, 2-dimethylaminoisopropyl chloride hydrochloride (DIC), and N-methyl-2-pyrrolidinone (NMP) at room temp. for 16 h, washed with DMF five times, and condensed with pyrroline using HOAt, DIC, and NMP, followed by oxidn. with OsO4 in dioxane at room temp. for 16 and resin-cleavage in aq. CF3CO2H to give N-[2-[(cis-2,4-dihydroxypyrrolidin-1yl)carbonyl]-2-ethylbutanoyl]-O-(2,6-dichlorobenzyl)-L-tyrosine (II). and N-[2-[(pyrrolidin-1-yl)carbonyl]-2-ethylbutanoyl]-4-(2,6dichlorobenzoylamino)-L-phenylalanine inhibited the binding of human recombinant VCAM-1 to human B lymphoma cell line expressing integrin.alpha.4.beta.7 with IC50 of .ltoreq.0.02 .mu.mol/L. 340716-57-6P 340716-58-7P 340716-59-8P 340717-11-5P 340717-12-6P 340717-13-7P 340717-14-8P 340717-15-9P 340717-16-0P 340717-17-1P 340717-18-2P 340717-19-3P 340718-08-3P 340718-09-4P 340718-11-8P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of novel phenylalanine derivs. as .alpha.4-integrin inhibitors) THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 3 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L17 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN 2001:228855 HCAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 134:252658 Preparation of tyrosine derivatives as inhibitors of TITLE: .alpha.4 contq. integrin-mediated binding to ligands VCAM-1 and MAdCAM. INVENTOR(S): Jackson, David Y.; Sailes, Frederick C.; Sutherlin, Daniel P. Genentech, Inc., USA PATENT ASSIGNEE(S): PCT Int. Appl., 86 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE _____ ____ -----WO 2000-US26326 20000925 WO 2001021584 A1 20010329 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

IT

```
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
```

Robinson 09_326020

```
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           EP 2000-965417 20000925
                            20020619
     EP 1214292
                       A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
                            20021022
                                            US 2000-669779
                                                             20000925
     US 6469047
                      B1
     JP 2003509488
                       T2
                            20030311
                                            JP 2001-524964
                                                             20000925
                                         US 1999-156062P P 19990924
PRIORITY APPLN. INFO.:
                                         WO 2000-US26326 W 20000925
                         MARPAT 134:252658
OTHER SOURCE(S):
     Tyrosine derivs., e.g., ArCH2CH[N(A)(Z)]CO-Y[Z = H, alkyl; A =
     B(CH2)q-X-, where B = (un)substituted Ph and <math>X = CO, SO2, null or B = CO
     cyanoalkyl, carbocyclyl or heterocyclyl and X = CO; R6 = H, alkyl, amino,
     cyano, hydroxy, alkylsulfonyl, etc.; q = 0-3; Y is H, (un)substituted
     alkoxy, alkoxyalkoxy, aryloxy, alkylaminoalkoxy,
     dialkylaminoalkoxy, alkylamino, arylamino, heterocyclyl or heteroarylalkyl;
     Ar is Ph which has hydroxy, carbonate, thiocarbonate, carbamoyloxy or acyloxy groups and optionally other substituents] were prepd. as
     inhibitors of .alpha.4 contg. integrin-mediated binding to ligands such as
     VCAM-1 and MAdCAM. Methods of synthesis are described and inhibitory
     binding data are tabulated for 416 compds., including N-(o-chlorobenzoyl)-
     O-(allylcarbamoyl)-L-tyrosine, for which IC50 is < 1.0 micromolar.
IT
     331468-54-3P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (prepn. of tyrosine derivs. as inhibitors of .alpha.4 contg.
       integrin-mediated binding to ligands VCAM-1 and MAdCAM.)
REFERENCE COUNT:
                         2
                                THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L17 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
                         2000:873308 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         134:41915
                         Preparation of 3-Aromatic-substituted propionic acid
TITLE:
                         or acrylic acid derivatives as antidiabetics
                         Kitajima, Hiroshi; Nakamura, Koji; Tamagawa, Hiroki
INVENTOR(S):
PATENT ASSIGNEE(S):
                         Wellfide K. K., Japan
                         Jpn. Kokai Tokkyo Koho, 94 pp.
SOURCE:
                         CODEN: JKXXAF
                         Patent
DOCUMENT TYPE:
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
                 KIND DATE
                                            APPLICATION NO. DATE
     PATENT NO.
                                            _____
     JP 2000344748 A2
                                           JP 2000-89964 20000328
                            20001212
                                         JP 1999-87308 A 19990329
PRIORITY APPLN. INFO.:
OTHER SOURCE(S): MARPAT 134:41915
GI
```

Title compds. [ZY(CH2)nXArCRR1CR2(ACOR4)CO2R3; R = H, alkyl; R1R2 AΒ independently = H, alkyl; R3 = H, alkyl; R4 = NH2, alkylamino, cycloalkyamino; A = CH2, NH, alkylamino; Ar = aryl, heterocyclyl; X = bond, NH, alkylamino, S, SO, SO2, CONR5, NR6CO; R5 = H, alkyl; R6 = alkyl, H; n = 1, 2, 3, 4, 5; Y = bond, NH, alkyl, S, SO, SO2, CONH; <math>Z = pyridyl, benzimidazolyl, benzoxazolyl, oxazolyl, thiazolyl, benzothiazolyl] and pharmaceutical salts are prepd. as antidiabetics which promote insulin secretion and improve action toward insulin resistant. Thus, the title compd. I was prepd. and tested.

312688-42-9P ΙT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of arom. substituted propionic acid or acrylic acid derivs. as antidiabetics)

IT 312689-64-8P 312689-70-6P 312689-71-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of arom. substituted propionic acid or acrylic acid derivs. as antidiabetics)

IT 312688-47-4P 312688-48-5P

> RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of arom. substituted propionic acid or acrylic acid derivs. as antidiabetics)

HCAPLUS COPYRIGHT 2003 ACS on STN L17 ANSWER 21 OF 29

ACCESSION NUMBER:

2000:863150 HCAPLUS

DOCUMENT NUMBER:

134:157200

TITLE:

Development of potent and selective plasmin and plasma

kallikrein inhibitors and studies on the

structure-activity relationship

AUTHOR(S):

Okada, Yoshio; Tsuda, Yuko; Tada, Mayako; Wanaka, Keiko; Okamoto, Utako; Hijikata-Okunomiya, Akiko;

Okamoto, Shosuke

CORPORATE SOURCE:

Faculty of Pharmaceutical Sciences, and High

Technology Research Center, Kobe Gakuin University,

Kobe, 651-2180, Japan

SOURCE:

Chemical & Pharmaceutical Bulletin (2000), 48(12),

1964-1972

CODEN: CPBTAL; ISSN: 0009-2363 Pharmaceutical Society of Japan

PUBLISHER: DOCUMENT TYPE:

Journal

English LANGUAGE:

Based on structure-activity relationship studies, we designed and AΒ synthesized plasmin (PL) and plasma kallikrein (PK) inhibitors. Trans-(4-aminomethylcyclohexanecarbonyl)-Tyr(O-Pic)-octylamide inhibited PL, PK, urokinase (UK) and thrombin (TH) with IC50 values of 0.53, 30, 5.3

Robinson 09_326020

and >400 .mu.M, resp. Trans-(4-aminomethylcyclohexanecarbonyl)-Tyr(O-2-Pyrim)-4-carboxyanilide inhibited PL, PK, UK and TH with IC50 values of 36, 0.56, 440 and >1000 .mu.M, resp.

IT 325464-12-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(plasmin and plasma kallikrein inhibitors: structure-activity

relationship)

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:

2000:861644 HCAPLUS

DOCUMENT NUMBER:

134:29705

TITLE:

Preparation of squaric acid derivatives as cell

adhesion molecules

INVENTOR(S):

Langham, Barry John; Alexander, Rikki Peter; Head, John Clifford; Linsley, Janeen Marsha; Porter, John Robert; Archibald, Sarah Catherine; Warrelow, Graham

John

PATENT ASSIGNEE(S):

Celltech Chiroscience Limited, UK

SOURCE:

PCT Int. Appl., 144 pp.

DOCUMENT TYPE:

CODEN: PIXXD2

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

```
PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                            20001207
                                          WO 2000-GB2020
                                                            20000526
     WO 2000073260
                     A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
             SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
             ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6518283
                            20030211
                                           US 2000-579317
                                                             20000525
                       В1
     EP 1181266
                                           EP 2000-935341
                                                             20000526
                            20020227
                       Α1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2003500467
                       T2
                            20030107
                                           JP 2000-621327
                                                             20000526
                                           US 2002-319272
                                                            20021213
     US 2003162799
                       Α1
                            20030828
                                        GB 1999-12640
                                                         A 19990528
PRIORITY APPLN. INFO.:
                                        GB 2000-2858
                                                         A 20000208
                                        US 2000-579317
                                                         A3 20000525
                                        WO 2000-GB2020
                                                         W 20000526
                         MARPAT 134:29705
OTHER SOURCE(S):
```

R1R2N L1 (Alk1) nR3

GI

O O I

AB Squaric acid derivs. I [R1 is an integrin binding group; R2 is a hydrogen

atom or a C1-6 alkyl group; L1 is a covalent bond or a linker atom or group; n = 0, 1; Alk1 is an optionally substituted aliph. chain; R3 is H or an optionally substituted heteroaliph., cycloaliph., heterocycloaliph., polycycloaliph., polyheterocycloaliph., arom. or heteroarom. group] and their salts, solvates, hydrates and N-oxides were prepd. as inhibitors of the binding of integrins to their ligands. Thus, treatment of Et (S)-3-(4-aminophenyl)-2-(tert-butoxycarbonylamino)propionate with 3,5-dichloro-4-pyridinecarboxylic acid, deprotection, reaction with 3,4-diisopropoxy-3-cyclobutene-1,2-dione, propylamination, and sapon. afforded (S)-3-[4-(3,5-dichloro-4-pyridylcarboxamido)phenyl]-2-(2-propylamino-3,4-dioxocyclobut-1-enylamino)propanoic acid. Compds. of the invention in which R1 is an .alpha.4 integrin binding group generally have IC50 values <1.mu.M in the .alpha.4.beta.1 and .alpha.4.beta.7 assays.

IT 252328-07-7P 263276-03-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of squaric acid derivs. as cell adhesion mols.)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:840649 HCAPLUS

DOCUMENT NUMBER: 134:110109

TITLE: Hybridization of non-sulfonylurea insulin secretagogue

and thiazolidinedione-derived insulin sensitizer

AUTHOR(S): Kitajima, Hiroshi; Nakamura, Mitsuharu; Tamakawa,

Hiroki; Goto, Nobuharu

CORPORATE SOURCE: Department of Discovery Research, Welfide Corporation,

Hirakata, 573-1153, Japan

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000),

10(21), 2453-2456

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

GΙ

Ph
$$CH_2$$
 CH_2 CH_2

AB Hybrid compds. of non-sulfonylurea insulinotropic agents and thiazolidinedione-derived insulin-sensitizing agents were designed and synthesized. The benzylidenesuccinic acid deriv. I was equal both to nateglinide in potency of insulin-releasing activity and to pioglitazone in insulin-sensitizing activity.

IT 321371-24-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of thiazolidinediones as insulinotropics and insulin

sensitizers)

THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS 19 REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER:

2000:441762 HCAPLUS

DOCUMENT NUMBER: TITLE:

Preparation of N-acylphenylalanine derivatives and analogs as inhibitors of .alpha.4.beta.1 mediated cell

adhesion

133:74323

INVENTOR(S):

Teegarden, Bradley R.; Jayakumar, Honnappa; Matsuki, Kenji; Chrusciel, Robert A.; Fisher, Jed F.; Tanis,

Steven P.; Thomas, Edward W.; Blinn, James R.

PATENT ASSIGNEE(S):

Tanabe Seiyaku Co., Ltd., Japan; Pharmacia & Upjohn

Company

SOURCE:

PCT Int. Appl., 215 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAS	PATENT NO.				KIND DATE				A.	PPLI	CATI	ο.	DATE				
	2000037429 A3					2000			WO 1999-US30665 19991220								-
								BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,
														HR,			
														LT,			
														SE,			
		SL,	TJ,	TM,	TR,	TT,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZW,	AM,	ΑZ,	BY,
		KG,	ΚZ,	MD,	RU,	ТJ,	TM										
	RW:	GH,	GM,	ΚE,	LS,	MW,	SD,	SL,	SZ,	ΤZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,	DE,
		DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
		CG,	CI,			GN,											
EP	1144	365		A:	2	2001	1017		E	P 19	99-9	6658	4	1999	1220		
EP	1144																
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO										
JP	2003	5246	14	\mathbf{T}	2	2003	0819							1999			
PRIORITY	APP	LN.	INFO	.:										1998			
										999-1	US30	665	M	1999	1220		

OTHER SOURCE(S): GI

MARPAT 133:74323

Title compds. I [X = halo, CF3, NO2, OH, alkoxy, NH2, alkyl; n = 1-3; Z1, Z2 = CH or N; Y = OCH2 or NHCO; R = OH or alkoxy; R1 = acyl group] or AΒ their pharmaceutically acceptable salts were prepd. as inhibitors of

.alpha.4.beta.1 mediated adhesion to either the vascular cell adhesion mol. (VCAM-1) or the CS-1 domain of fibronectin and are useful in the treatment of inflammatory diseases. Approx. 200 invention compds. and their intermediates were prepd. by various coupling methods and purified by chromatog. on silica gel. Thus, 4-[(2,6-dichlorobenzoyl)amino]-N-[[(3S)-7-hydroxy-1,2,3,4-tetrahydro-3-isoquinolyl]carbonyl]-Lphenylalanine was prepd. by deprotection of resin-bound N-(tert-butoxycarbonyl)-4-[(2,6-dichlorobenzoyl)amino]-L-phenylalanine with 50% TFA/CH2Cl2, followed by treatment with (3S)-2-(tertbutoxycarbonyl)-7-hydroxy-1,2,3,4-tetrahydro-3-isoquinolinecarboxylic acid, deprotection, and hydrolysis with 2N LiOH. In vitro cell adhesion inhibitory and/or modulatory activities are reported for > 100 invention compds. tested in Jurkat CS-1 and/or Jurkat endothelial cell (EC) adhesion inhibition assays. Ten compds. showed IC50 values .ltoreq. 0.8 .mu.M in both assays.

279239-98-4P 279239-99-5P 279240-00-5P IT 279240-01-6P 279240-02-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of N-acylphenylalanine derivs. and analogs as inhibitors of .alpha.4.beta.1 mediated cell adhesion)

279240-61-8P 279240-63-0P 279240-64-1P TΤ 279240-66-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N-acylphenylalanine derivs. and analogs as inhibitors of .alpha.4.beta.1 mediated cell adhesion)

L17 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:289136 HCAPLUS

DOCUMENT NUMBER:

132:308248

TITLE:

Preparation of chromenone and chromanone derivatives

as integrin inhibitors.

Fittschen, Claus; Goodman, Simon; Maerz, Joachim; INVENTOR(S):

Raddatz, Peter; Wiesner, Matthias Merck Patent G.m.b.H., Germany

PATENT ASSIGNEE(S): Ger. Offen., 24 pp.

SOURCE:

CODEN: GWXXBX

DOCUMENT TYPE: Patent German LANGUAGE:

FAMILY ACC. NUM. COUNT:

PA'	CENT :	NO.		KI	ND	DATE			Al	PPLI	CATIO	ои ис	ο.	DATE			
	1985																
WO	2000	0262	12	A	1	2000	0511		W(19:	99-E1	P772	5	1999	1014		
	W:	ΑE,	AL,	AM,	AT,	AU,	ΑZ,	ΒA,	BB,	ВG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,
		CZ,	DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	ΗU,	ID,	IL,
		IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,
														SD,			
		SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZW,	AM,
		ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM								
	RW:													BE,			
		DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
						GN,											
ΑU	9964	716		Α	1	2000	0522		Αl	J 19	99-6	4716		1999	1014		
ΑU	7542	80		B.	2	2002	1114										
BR	9914	893		Α		2001	0717		Bl	R 19	99-1	4893		1999	1014		
ΕP	1124	824		Α	1	2001	0822		E	P 19	99-9	5256	6	1999	1014		
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO										

20020903 JP 2000-579600 19991014 T2 JP 2002528544 20010427 NO 2001-2108 20010427 NO 2001002108 Α 20010529 ZA 2001004411 Α 20020829 ZA 2001-4411 DE 1998-19850131 A PRIORITY APPLN. INFO.: 19981030 WO 1999-EP7725 W 19991014

OTHER SOURCE(S): MARPAT 132:308248

GΙ

AB Title compds. [I; R1 = CH2OR10, CO2R10, CONHR10, CON(R12)2; R2 = R10,
 COR10, COR5, CO2R6, CO2R10, etc.; R3 = H, halo, NHR10, N(R12)2, acylamino,
 acyloxy, cyano, NO2, etc.; R4 = H, A, Ar, aralkylene; R5 = (substituted)
 NH2, H2NC(:NH), H2N(C:NH)NH; R7, R8 = null, H; R7R8 = bond; Z = null, O,
 S, NH, NR1, CO, CONH, etc.; R10 = H, A, Ar, aralkylene; R11 = H, alkyl;
 R12 = alkyl; A = H, (substituted) (N-, O-, and/or S-interrupted) alkyl,
 cycloalkyl; Ar = (substituted) (N-, O-, and/or S-contg.) mono- or bicyclic
 aryl; m, n = 0-4], were prepd. as GPI-Ib/IIIa antagonists and .alpha.v
 integrin inhibitors (no data). Thus, title compd. (II) was prepd. in
 several steps.

IT 265653-90-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of chromenone and chromanone derivs. as integrin inhibitors)

L17 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:227650 HCAPLUS

DOCUMENT NUMBER: 132:265501

TITLE: Phenylalanine derivatives as alpha 4 integrin

inhibitors

INVENTOR(S): Head, John Clifford; Porter, John Robert; Warrellow,

Graham John; Archibald, Sarah Catherine; Hutchinson,

II

Brian Woodside

PATENT ASSIGNEE(S): Celltech Therapeutics Limited, UK

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

```
DATE
                                           APPLICATION NO.
                                                            DATE
     PATENT NO.
                      KIND
     _____
                                           WO 1999-GB3210
                                                            19990928
     WO 2000018759
                            20000406
                       Α1
            AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
             MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
             SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            20020219
                                           US 1999-406560
                                                            19990927
     US 6348463
                       В1
                                           CA 1999-2338442 19990928
     CA 2338442
                            20000406
                       AA
     AU 9961059
                                           AU 1999-61059
                                                            19990928
                            20000417
                       Α1
     EP 1117657
                            20010725
                                           EP 1999-947680
                                                            19990928
                       Α1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
                            20020813
                                           JP 2000-572219
                                                            19990928
     JP 2002525367
                       T2
                                           US 2001-927874
                                                            20010810
     US 2002028812
                       Α1
                            20020307
                                        GB 1998-21061
                                                        A 19980928
PRIORITY APPLN. INFO.:
                                        US 1999-406560
                                                         A3 19990927
                                        WO 1999-GB3210
                                                         W 19990928
OTHER SOURCE(S):
                         MARPAT 132:265501
GΙ
```

$$\begin{array}{c} R^4 \\ R^2 \stackrel{}{\rightarrow} Ar^1 (Alk^1)_p L^1 \\ R^3 \end{array}$$
 (Alk²) mCR(R⁶) (CH₂)_nN(R?)Ar²

AB Phenylalanine derivs. I [Ar1 = arom. or heteroarom. group; Alk1 = (un)substituted aliph. or heteroaliph. chain; L1, L2, L3 = a covalent bond or a linker atom or group; Alk2 = alkylene; R is a carboxylic acid or deriv.; Ar2 = (un)substituted arom. or heteroarom. group; R1, R2, R3, R4, R5 = -L2(Alk3)tL3(R7)u; Alk3 = aliph. or heteroaliph. chain; R6, Ra = H, Me; R7 = H, halo, alkyl, OH, SH, NH2, (un)substituted alkoxy, thioalkyl, or aminoalkyl; m, n, p, t = 0, 1; u = 1-3] and their salts, solvates, hydrates, and N-oxides were prepd. as selective inhibitors of .alpha.4 integrins useful for the prophylaxis and treatment of immune or

Robinson 09_326020 inflammatory disorders. For example, a multi-step synthesis of the title compd. II was given. Compds. I were tested for inhibition of integrin-dependent cell adhesion and generally have IC50 values of .ltoreq. 1.mu.M in .alpha.4.beta.1 and .alpha.4.beta.7 assays, and IC50 values of .gtoreq. 50 .mu.M in assays of other integrins. IT 263276-03-5P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepn. of phenylalanine derivs. as alpha 4 integrin inhibitors) THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 7 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L17 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN 1999:795785 HCAPLUS ACCESSION NUMBER: 132:36028 DOCUMENT NUMBER: Preparation of phenylalanine derivatives as integrin TITLE: inhibitors INVENTOR(S): Porter, John Robert; Head, John Clifford; Warrellow, Graham John; Archibald, Sarah Catherine PATENT ASSIGNEE(S): Celltech Therapeutics Limited, UK PCT Int. Appl., 49 pp. SOURCE: CODEN: PIXXD2 DOCUMENT TYPE: Patent English LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE 19991216 WO 1999-GB1758 19990604 WO 9964390 A1 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 19990604 AU 9942765 A1 19991230 AU 1999-42765 20010314 EP 1999-955469 19990604 EP 1082294 A1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2002517480 T2 20020618 JP 2000-553400 19990604 A 19980605 PRIORITY APPLN. INFO.: GB 1998-12088 W 19990604 WO 1999-GB1758 OTHER SOURCE(S): MARPAT 132:36028

Phenylalanine derivs. p-[R1(Alk1)r(L1)s]C6H4(Alk2)mCRR2X1R4 [R is a carboxylic acid or deriv.; R1 = (un)substituted cycloaliph., polycycloaliph., heterocycloaliph., polyheterocycloaliph., arom., or heteroarom. group; Alk1 = (un)substituted aliph. or heteroaliph. chain; L1 is a linker atom or group; r, s, m = 0 or 1; Alk2 = alkylene; R2 = H, Me; X1 = NR3CO, NR3SO2, NR3CO2, or NR3CONR3a (R3, R3a = H or alkyl); R4 = (un)substituted aliph. cycloaliph., or polycycloaliph. group] were prepd. for use as .alpha.4 integrin inhibitors. Thus, N-isobutyryl-N'-(3,5-dichloroisonicotinoyl)-L-4-aminophenylalanine was prepd. via acylation/sapon. of N'-(3,5-dichloroisonicotinoyl)-L-4-aminophenylalanine Me ester. The compds. of the invention generally have IC5O values in the .alpha.4.beta.1 and .alpha.4.beta.7 assays of 1 .mu.M and below.

IT 252327-70-1P 252327-71-2P 252327-72-3P 252327-73-4P 252327-78-9P 252327-84-7P 252327-86-9P 252327-88-1P 252327-90-5P 252327-94-9P 252327-99-4P 252328-03-3P

Robinson 09 326020

```
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
        study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
         (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
         (Reactant or reagent); USES (Uses)
              (prepn. of phenylalanine derivs. as integrin inhibitors)
        252327-74-5P 252327-75-6P 252327-76-7P
IT
        252327-77-8P 252327-80-3P 252327-85-8P
        252327-87-0P 252327-89-2P 252327-91-6P
        252327-95-0P 252327-98-3P 252328-04-4P
        RL: BAC (Biological activity or effector, except adverse); BSU (Biological
        study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
        BIOL (Biological study); PREP (Preparation); USES (Uses)
              (prepn. of phenylalanine derivs. as integrin inhibitors)
        252328-07-7P
IT
        RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
         (Reactant or reagent)
              (prepn. of phenylalanine derivs. as integrin inhibitors)
                                                    THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                                          8
                                                     RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
                                     HCAPLUS COPYRIGHT 2003 ACS on STN
L17 ANSWER 28 OF 29
                                          1999:566014 HCAPLUS
ACCESSION NUMBER:
                                           131:185243
DOCUMENT NUMBER:
                                          Phenylalanine derivatives as inhibitors of .alpha.4
TITLE:
                                           integrins
                                          Archibald, Sarah Catherine; Head, John Clifford;
INVENTOR(S):
                                          Warrellow, Graham John; Porter, John Robert
                                          Celltech Therapeutics Limited, UK
PATENT ASSIGNEE(S):
SOURCE:
                                          PCT Int. Appl., 53 pp.
                                          CODEN: PIXXD2
DOCUMENT TYPE:
                                          Patent
LANGUAGE:
                                          English
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                             KIND DATE
        PATENT NO.
                                                                        APPLICATION NO. DATE
                                               19990902
                                                                        WO 1999-GB589
        WO 9943642
                                    A1
               W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
                      DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
                      KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
                      MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
                      TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
                      TJ, TM
               RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
                      ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
                      CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                                                         AU 1999-32603
        AU 9932603
                                       Α1
                                                19990915
                                                                                                      19990226
                                                20001206
                                                                         EP 1999-936071
                                                                                                      19990226
        EP 1056714
                                       Α1
                     AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                      IE, FI
                                                                                                      19990226
        JP 2002504534
                                       T2
                                                20020212
                                                                         JP 2000-533401
        US 6555562
                                                20030429
                                                                         US 1999-258522
                                                                                                      19990226
                                       B1
        US 2003166691
                                       A1
                                                20030904
                                                                         US 2003-379092
                                                                                                      20030303
                                                                                               A 19980226
PRIORITY APPLN. INFO.:
                                                                    GB 1998-4161
                                                                                                 A 19981203
                                                                    GB 1998-26668
                                                                                                 A1 19990226
                                                                    US 1999-258522
                                                                    WO 1999-GB589
                                                                                                 W 19990226
OTHER SOURCE(S):
                                          MARPAT 131:185243
        \label{lem:phenylalanine} Phenylalanine derivs. p-[R1(Alk1)r(L1)s]C6H2RaRb(Alk2)mCRR2NR3COAr \ [R is a limit of the context 
        carboxylic acid deriv.; R1 = H, OH, alkoxy, (un)substituted cycloaliph.,
        heterocycloaliph., polyheterocycloaliph., arom., or heteroarom. group;
        Alk1 = (un) substituted aliph. or heteroaliph. chain; L1 is a linker group;
```

Robinson 09_326020

```
r, s = 0 or 1; Ra, Rb = -L2(CH2)pL3(Rc)q, where L2 or L3 is a bond or
     linker atom or group; p = 0 or 1; q = 1-3; Rc = H, halo, alkyl, OH,
     alkoxy, etc.; Alk2 = alkylene; m = 0 or 1; R2 = H, Me; R3 = H, alkyl; Ar
     is an optionally substituted arom. group] were prepd. for use as .alpha.4
     integrin inhibitors. Thus, N-(2,6-dimethoxybenzoyl)-O-[(3,5-dichloro-4-
     pyridinyl)methyl]-L-tyrosine was prepd. via alkylation/acylation of
     tert-butoxycarbonyl-L-tyrosine Me ester.
     240481-95-2P 240481-96-3P 240481-97-4P
     240482-02-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (phenylalanine derivs. as inhibitors of .alpha.4 integrins)
     240482-08-0P 240482-09-1P 240482-10-4P
     240482-11-5P 240482-12-6P 240482-13-7P
     240482-14-8P 240482-15-9P 240482-16-0P
     240482-17-1P 240482-18-2P 240482-19-3P
     240482-24-0P 240482-25-1P 240482-26-2P
     240482-27-3P
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (phenylalanine derivs. as inhibitors of .alpha.4 integrins)
                               THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
L17 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2003 ACS on STN
                         1999:454256 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         131:88205
                         Preparation of phenylalanine derivatives as
TITLE:
                         antiinflammatory agents
                         Head, John Clifford; Archibald, Sarah Catherine;
INVENTOR(S):
                         Warrellow, Graham John; Porter, John Robert
PATENT ASSIGNEE(S):
                         Celltech Therapeutics Limited, UK
                         PCT Int. Appl., 94 pp.
SOURCE:
                         CODEN: PIXXD2
                         Patent
DOCUMENT TYPE:
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                    KIND
                           DATE
                                          APPLICATION NO. DATE
                                          _____
                            19990715
                                                        19990108
                     A1
                                         WO 1999-GB62
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            20010306
                                          US 1999-226833
                                                            19990107
     US 6197794
                       В1
     AU 9919776
                       A1
                            19990726
                                           AU 1999-19776
                                                            19990108
                                          EP 1999-900560
                                                            19990108
     EP 1044215
                      A1
                            20001018
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
                                           JP 2000-527558
                                                            19990108
    JP 2002500232
                            20020108
                       T2
```

WO 1999-GB62 MARPAT 131:88205 OTHER SOURCE(S):

PRIORITY APPLN. INFO.:

IT

IT

Phenylalanine derivs. p-[R1(Alk1)r(L1)s]C6H2R2R3(Alk3)mCRR4NR5C(O)CHANA(L2 AΒ)t(Alk2)uR6 [R1, R6 = H or (un)substituted cycloaliph., polycycloaliph.,

GB 1998-396

GB 1998-26499

A 19980108

Α

W

19981202

19990108

heterocycloaliph., polyheterocycloaliph., arom., or heteroarom. group; Alk1, Alk2 = (un) substituted aliph. or heteroaliph. chain; L1 = a linker atom or group; r, s, m, t, u = 0-1; Alk3 = alkylene; R4 = H, Me; R5 = H, alkyl; A2 is a chain -(CR7R8)pY(CR9R10)q- in which Y is a sulfur atom, SO, or SO2, R7, R8, R9 and R10 = H, alkyl, or (un) substituted arom. group or CR7R8 and CR9R10 form a cycloalkyl group, and p and q = 0-2 (not both zero); L2 = CO, CO2, C(S), SO2, CON(R11) (R11 = H, alkyl), CSN(R11), SON(R11), or SO2N(R11); R is a carboxylic acid or a deriv.; R2, R3 = L3(CH2)pL4(R2a)q, where L3, L4 is a covalent bond or linker atom or group; p = 0, 1; q = 1-3; R2a = H, halo, alkyl, OH, etc.] or their salts, solvates and hydrates were prepd. The compds. inhibit the binding of .alpha.4 integrins to their ligands and are of use in the prophylaxis and treatment of immune or inflammatory disorders. Thus, N-(pyrid-3-ylacetyl)-D-thioproline-N'-(2,6-dichlorobenzoyl)-L-4-aminophenylalanine was prepd. from 4-aminophenylalanine Me ester dihydrochloride, N-Boc-D-thioproline, 2,6-dichlorobenzoyl chloride, and 3-pyridylacetic acid hydrochloride. The products in the examples showed potency and selectivity against .alpha.4 integrins (IC50 values .gtoreq. 50 .mu.M).

IT 229328-63-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of phenylalanine derivs. as antiinflammatory agents)
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> select hit rn 117 1-25 E52 THROUGH E162 ASSIGNED

=> select hit rn 117 26-29 E163 THROUGH E209 ASSIGNED

=> fil reg FILE 'REGISTRY' ENTERED AT 17:42:11 ON 05 DEC 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 4 DEC 2003 HIGHEST RN 623900-56-1 DICTIONARY FILE UPDATES: 4 DEC 2003 HIGHEST RN 623900-56-1

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> =>

=> d his 118

(FILE 'HCAPLUS' ENTERED AT 17:38:12 ON 05 DEC 2003) SELECT HIT RN L17 1-25

SELECT HIT RN L17 26-29

FILE 'REGISTRY' ENTERED AT 17:42:11 ON 05 DEC 2003 L18 111 S E52-E162

=>	d	reg	118	1-111	
1			RN	609804-43-5	REGISTRY
2			RN	554418-89-2	REGISTRY
3			RN	479641-68-4	REGISTRY
4			RN	462124-43-2	REGISTRY
5			RN	462123-55-3	REGISTRY
6			RN	455264-94-5	REGISTRY
7			RN	444087-42-7	REGISTRY
8			RN	444086-88-8	REGISTRY
9			RN	444086-87-7	REGISTRY
10			RN	444086-82-2	REGISTRY
11			RN	444086-81-1	REGISTRY
12			RN	444086-78-6	REGISTRY
13			RN	444086-77-5	REGISTRY
14			RN	444086-76-4	REGISTRY
15			RN	444086-75-3	REGISTRY
16			RN	444086-74-2	REGISTRY
17			RN	444086-73-1	REGISTRY
18			RN	444086-72-0	REGISTRY
19			RN	444086-71-9	REGISTRY
20			RN	444086-70-8	REGISTRY
21			RN	444086-69-5	REGISTRY
22			RN	444086-68-4	REGISTRY
23			RN	444086-67-3	REGISTRY
24			RN	444086-66-2	REGISTRY
25			RN	444086-65-1	REGISTRY
26			RN	444086-64-0	REGISTRY
27			RN	444086-63-9	REGISTRY
28			RN	444086-62-8	REGISTRY
29			RN	444086-61-7	REGISTRY
30			RN	444086-60-6	REGISTRY
31			RN	444086-59-3	REGISTRY
32			RN	444086-58-2	REGISTRY
33			RN	444086-57-1	REGISTRY
34			RN	444086-56-0	REGISTRY
35			RN	444086-55-9	REGISTRY
36			RN	444086-54-8	REGISTRY REGISTRY
37 38			RN	444086-53-7	REGISTRY
39			RN RN	444086-52-6	REGISTRY
40			RN	444086-51-5 444086-44-6	REGISTRY
41			RN	444086-43-5	REGISTRY
42			RN	444086-43-5	REGISTRY
43			RN	444086-41-3	REGISTRY
44			RN	444086-40-2	REGISTRY
45			RN	444086-40-2	REGISTRY
46			RN	444086-38-8	REGISTRY
47			RN	444086-37-7	REGISTRY
48			RN	444086-36-6	REGISTRY
49			RN	444086-35-5	REGISTRY
50			RN	443690-20-8	REGISTRY
51			RN	443690-14-0	REGISTRY
52			RN	443690-13-9	REGISTRY
53			RN	401471-09-8	REGISTRY
54			RN	401471-00-9	REGISTRY
55			RN	401470-90-4	REGISTRY
56			RN	401470-89-1	REGISTRY
57			RN	401470-88-0	REGISTRY
٠,			7/14	1011.0 00 0	

REGISTRY

RN

```
58
                401470-87-9
59
                             REGISTRY
          RN
                401470-86-8
60
          RN
                401470-85-7
                             REGISTRY
                             REGISTRY
61
          RN
                401470-84-6
          RN
                401470-75-5
                             REGISTRY
62
                401470-74-4
                             REGISTRY
63
          RN
                401470-73-3
64
          RN
                             REGISTRY
65
          RN
                401470-72-2
                             REGISTRY
66
          RN
                401470-70-0
                             REGISTRY
67
          RN
                360045-62-1
                             REGISTRY
          RN
                360045-59-6
68
                             REGISTRY
          RN
                360045-57-4
                             REGISTRY
69
70
          RN
                360045-56-3
                             REGISTRY
71
          RN
                360045-49-4
                             REGISTRY
                340718-11-8
72
          RN
                             REGISTRY
73
          RN
                340718-09-4
                             REGISTRY
74
          RN
                340718-08-3
                             REGISTRY
75
          RN
                340717-19-3
                             REGISTRY
                340717-18-2
76
          RN
                             REGISTRY
                340717-17-1
77
          RN
                             REGISTRY
                340717-16-0
78
          RN
                             REGISTRY
                340717-15-9
79
                             REGISTRY
          RN
                340717-14-8
                             REGISTRY
80
          RN
81
          RN
                340717-13-7
                             REGISTRY
82
          RN
               340717-12-6
                             REGISTRY
83
          RN
               340717-11-5
                             REGISTRY
84
          RN
               340716-59-8
                             REGISTRY
85
          RN
               340716-58-7
                             REGISTRY
86
          RN
                340716-57-6
                             REGISTRY
                             REGISTRY
87
          RN
                331468-54-3
88
          RN
                325464-12-8
                             REGISTRY
                             REGISTRY
89
          RN
                321371-24-8
90
          RN
                312689-71-7
                             REGISTRY
91
          RN
                312689-70-6
                             REGISTRY
92
          RN
                             REGISTRY
                312689-64-8
93
                             REGISTRY
          RN
                312688-48-5
94
                             REGISTRY
          RN
                312688-47-4
95
          RN
                312688-42-9
                             REGISTRY
96
          RN
                279240-66-3
                             REGISTRY
97
          RN
                279240-64-1
                             REGISTRY
98
          RN
                279240-63-0
                             REGISTRY
99
          RN
                279240-61-8
                             REGISTRY
                279240-02-7
                             REGISTRY
100
          RN
101
          RN
                279240-01-6
                             REGISTRY
102
          RN
                279240-00-5
                             REGISTRY
103
          RN
                279239-99-5
                             REGISTRY
                             REGISTRY
104
          RN
                279239-98-4
                265653-90-5
                             REGISTRY
105
          RN
106
          RN
                263276-03-5
                             REGISTRY
                             REGISTRY
107
          RN
                252328-07-7
                             REGISTRY
108
          RN
                206266-69-5
                             REGISTRY
109
          RN
                206266-68-4
          RN
                206263-76-5
                             REGISTRY
110
111
          RN
                 39837-03-1
                             REGISTRY
=> d ide can 118 1 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 111
     ANSWER 1 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN
L18
     609804-43-5 REGISTRY
RN
     L-Tyrosine, N-acetyl-O-[2-[(5-chloro-2-pyridinyl)amino]-2-oxoethyl]-3-
CN
```

cyano-, methyl ester (9CI) (CA INDEX NAME)

FS

STEREOSEARCH

MF C20 H19 C1 N4 O5

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:292142

L18 ANSWER 5 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 462123-55-3 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dimethylethoxy)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C21 H23 C12 N3 O5

SR CA

LC STN Files: CA, CAPLUS, USPATZ, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 138:90079

REFERENCE 2: 138:24961

REFERENCE 3: 137:263299

L18 ANSWER 10 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 444086-82-2 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)methyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C28 H24 C12 N4 O5 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 15 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 444086-75-3 REGISTRY

CN L-Phenylalanine, 4-[[(2-chloro-6-methyl-3-pyridinyl)carbonyl]amino]-N-[[(2-(phenylsulfonyl)phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C29 H25 C1 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 20 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

Robinson 09_326020

RN 444086-70-8 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-[(7-methylthieno[2,3-b]pyrazin-2-yl)thio]phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C29 H22 C12 N6 O4 S2

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 25 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 444086-65-1 REGISTRY

CN L-Phenylalanine, N-[[[2-(cyclopentylsulfonyl)phenyl]amino]carbonyl]-4[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (9CI) (CA
INDEX NAME)

FS STEREOSEARCH

MF C28 H28 C12 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 30 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 444086-60-6 REGISTRY

CN L-Phenylalanine, N-[[(cyclohexylmethyl)[2-[(cyclohexylmethylamino)carbonyl]phenyl]amino]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino][(9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C37 H43 C12 N5 O5

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 35 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN **444086-55-9** REGISTRY

CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)carbonyl]phenyl]methylamin o]carbonyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C31 H33 C12 N5 O5

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 40 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 444086-44-6 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[[2-(phenylsulfonyl)phenyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C28 H22 C12 N4 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 45 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 444086-39-9 REGISTRY

CN L-Phenylalanine, N-[[[2-[(cyclohexylmethylamino)sulfonyl]phenyl]amino]carb onyl]-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C30 H33 C12 N5 O6 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:125085

L18 ANSWER 50 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 443690-20-8 REGISTRY

CN L-Tyrosine, N-[(hexahydro-1H-azepin-1-yl)carbonyl]-L-leucyl-O-(3-pyridinylmethyl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C32 H46 N4 O5

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:109488

L18 ANSWER 55 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN RN 401470-90-4 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(3,3-dimethyl-1-phenylbutyl)(2-methylpropyl)amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C32 H38 C12 N4 O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:200103

L18 ANSWER 60 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 401470-85-7 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-methylpropyl)[1-(3-pyridinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C27 H29 C12 N5 O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:200103

L18 ANSWER 65 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 401470-72-2 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[[(2-

methylpropyl)[(1R)-1-phenylethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C28 H30 C12 N4 O4

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:200103

L18 ANSWER 70 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 360045-56-3 REGISTRY

CN L-Phenylalanine, N-(2,6-dichlorobenzoyl)-4-[[(2-methyl-3-

pyridinyl)oxy]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H18 C12 N2 O5

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:242013

L18 ANSWER 75 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 340717-19-3 REGISTRY

CN L-Phenylalanine, 4-[[(2-chloro-4-pyridinyl)carbonyl]amino]-N-[[1-[(dimethylamino)carbonyl]cyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H23 C1 N4 O5

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:367194

L18 ANSWER 80 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 340717-14-8 REGISTRY

CN L-Phenylalanine, N-[[1-[(dimethylamino)carbonyl]cyclopropyl]carbonyl]-4[(3-pyridinylcarbonyl)amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H24 N4 O5

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:367194

L18 ANSWER 85 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 340716-58-7 REGISTRY

CN L-Phenylalanine, 4-[[(5-bromo-3-pyridinyl)carbonyl]amino]-N-[[1- [(dimethylamino)carbonyl]cyclopropyl]carbonyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H23 Br N4 O5

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:367194

L18 ANSWER 90 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 312689-71-7 REGISTRY

CN Tyrosine, N-[(cyclohexylmethylamino)carbonyl]-O-[2-(5-ethyl-2-pyridinyl)ethyl]-, methyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C27 H37 N3 O4

SR CA

LC STN Files: CA, CAPLUS

Et
$$CH_2-CH_2-O$$
 CH_2-CH_2-O CH_2-CH_2-O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:41915

L18 ANSWER 95 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 312688-42-9 REGISTRY

CN Tyrosine, N-[(cyclohexylamino)carbonyl]-O-[2-(5-ethyl-2-pyridinyl)ethyl]-, methyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C26 H35 N3 O4

SR CA

LC STN Files: CA, CAPLUS

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 134:41915

L18 ANSWER 100 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 279240-02-7 REGISTRY

CN L-Phenylalanine, N-[[(1S,3R)-3-carboxy-2,2-dimethylcyclobutyl]carbonyl]-4[[(2,6-dichloro-3-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H23 C12 N3 O6

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 133:74323

L18 ANSWER 105 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN 265653-90-5 REGISTRY

CN L-Tyrosine, 3-acetyl-N-[(2,2-dimethylpropoxy)carbonyl]-, ethyl ester, 4-[[(2-chloroethoxy)carbonyl]-2-pyridinylamino]butanoate (ester) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C31 H40 C1 N3 O9

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:308248

L18 ANSWER 111 OF 111 REGISTRY COPYRIGHT 2003 ACS on STN

RN **39837-03-1** REGISTRY

CN L-Tyrosine, N-[(1,1-dimethylethoxy)carbonyl]-O-(4-pyridinylmethyl)- (9CI)

(CA INDEX NAME)

OTHER NAMES:

CN N-tert-Butoxycarbonyl-O-4-picolyl-L-tyrosine

FS STEREOSEARCH

MF C20 H24 N2 O5

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:144646

REFERENCE 2: 86:107036

REFERENCE 3: 78:4506

=>

=>

=> d his 119 (FILE 'REGISTRY' ENTERED AT 17:42:11 ON 05 DEC 2003) L19 47 S E163-E209 => => d reg 119 1-47 1 RN 263276-03-5 REGISTRY 2 RN 252328-07-7 REGISTRY 3 REGISTRY RN 252328-04-4 REGISTRY RN 252328-03-3 252327-99-4 RN REGISTRY RN252327-98-3 REGISTRY 7 252327-95-0 REGISTRY RN252327-94-9 REGISTRY 8 RN252327-91-6 REGISTRY 9 RN252327-90-5 REGISTRY 10 RN11 . RN252327-89-2 REGISTRY 252327-88-1 REGISTRY 12 RN 252327-87-0 REGISTRY 13 RN 14 RN 252327-86-9 REGISTRY 252327-85-8 REGISTRY 15 RN RN 252327-84-7 REGISTRY 16 REGISTRY 252327-80-3 17 RN 252327-78-9 REGISTRY 18 RN 252327-77-8 REGISTRY 19 RN 252327-76-7 20 REGISTRY RN

```
252327-75-6
21
          RN
                              REGISTRY
                252327-74-5
                              REGISTRY
22
          RN
                252327-73-4
23
          RN
                              REGISTRY
                252327-72-3
24
          RN
                              REGISTRY
25
                252327-71-2
                              REGISTRY
          RN
26
          RN
                252327-70-1
                              REGISTRY
27
                240482-27-3
                              REGISTRY
          RN
28
                240482-26-2
                              REGISTRY
          RN
          ŔΝ
29
                240482-25-1
                              REGISTRY
30
                240482-24-0
                              REGISTRY
          RN
31
          RN
                240482-19-3
                              REGISTRY
32
          RN
                240482-18-2
                              REGISTRY
                240482-17-1
33
          RN
                              REGISTRY
34
          RN
                240482-16-0
                              REGISTRY
35
          RN
                240482-15-9
                              REGISTRY
36
          RN
                240482-14-8
                              REGISTRY
37
          RN
                240482-13-7
                              REGISTRY
                240482-12-6
                              REGISTRY
38
          RN
                              REGISTRY
39
          RN
                240482-11-5
                              REGISTRY
40
          RN
                240482-10-4
41
          RN
                240482-09-1
                              REGISTRY
                240482-08-0
42
          RN
                              REGISTRY
43
                240482-02-4
                              REGISTRY
          RN
                240481-97-4
                              REGISTRY
44
          RN
45
          RN
                240481-96-3
                              REGISTRY
46
          RN
                240481-95-2
                              REGISTRY
47
          RN
                229328-63-6
                              REGISTRY
```

=> d ide can 119 1 5 10 15 20 25 30 35 40 45 47

ANSWER 1 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN L19 263276-03-5 REGISTRY RN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyl)carbonyl]amino[(1,1-dichloro-4-pyridinyCN

dimethylethoxy)carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H25 C12 N3 O5

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)

5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 137:217241

REFERENCE 2: 136:135022

REFERENCE 3: 136:135019

REFERENCE 4: 134:29705

REFERENCE 5: 132:265501

L19 ANSWER 5 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 252327-99-4 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-(ethoxycarbonyl)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C18 H17 C12 N3 O5

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:36028

L19 ANSWER 10 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 252327-90-5 REGISTRY

CN L-Phenylalanine, N-(butylsulfonyl)-4-[[(3,5-dichloro-4-

pyridinyl)carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C20 H23 C12 N3 O5 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:36028

L19 ANSWER 15 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN **252327-85-8** REGISTRY

CN L-Phenylalanine, 4-[[(2-chloro-3-pyridinyl)carbonyl]amino]-N-(2,2-dimethyl-

1-oxopropyl) - (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C20 H22 C1 N3 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:36028

L19 ANSWER 20 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN **252327-76-7** REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-(2,2-dimethyl-1-oxopropyl)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C20 H21 C12 N3 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:36028

L19 ANSWER 25 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 252327-71-2 REGISTRY

CN L-Phenylalanine, N-(cyclopropylcarbonyl)-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C20 H19 C12 N3 O4

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 132:36028

L19 ANSWER 30 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 240482-24-0 REGISTRY

CN L-Tyrosine, N-([1,1'-biphenyl]-4-ylcarbonyl)-0-[(3,5-dichloro-4-pyridinyl)methyl]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C28 H22 C12 N2 O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:185243

L19 ANSWER 35 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 240482-15-9 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-(2,6-dimethoxybenzoyl)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C24 H21 C12 N3 O6

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:185243

Robinson 09 326020

L19 ANSWER 40 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 240482-10-4 REGISTRY

CN L-Phenylalanine, N-(2-carboxybenzoyl)-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C23 H17 C12 N3 O6

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:185243

L19 ANSWER 45 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 240481-96-3 REGISTRY

CN L-Phenylalanine, N-(3-cyanobenzoyl)-4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C24 H18 C12 N4 O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:185243

L19 ANSWER 47 OF 47 REGISTRY COPYRIGHT 2003 ACS on STN

RN 229328-63-6 REGISTRY

CN L-Phenylalanine, 4-[[(3,5-dichloro-4-pyridinyl)carbonyl]amino]-N-[(1,1-dimethylethoxy)carbonyl]-N-methyl-, methyl ester (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C22 H25 C12 N3 O5

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 131:88205